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MICHIGAN STATISTICAL ABSTRACT

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PREFACE

Recently, I happened upon a book entitled History of the United States, Illustrated. Missing pages make identification difficult, but from promotional materials pasted on the inside covers, it appears the book was published by Lee and Shepard of Boston. Since the section on Michigan mentions the recent removal of the state capital from Detroit to Lansing, the volume probably was published circa 1848. The Michigan section is reproduced at the end of this Preface.

Another item of some interest to history buffs is the official version of the Toledo War which appears on pages 502-506 of this edition. The list of officers who participated in that event includes Alpheus Felch, Aide-de-camp. Felch was later governor of and U.S. Senator from Michigan.

Automotive historians may appreciate the inclusion in this Abstract of excerpts from Censuses of Manufactures dealing with the early development of the automobile. That material is presented in the introduction to chapter XVI.

The Abstract is designed to bring together in one volume the salient facts about the people and economy of Michigan and its subdivisions. Many data are not actually abstracted, since they are not published anywhere else. This is true, for example, of most statistics on licensing (concerning beauticians, food service establishments, and so forth).

In addition to simple data presentation, there is considerable emphasis on analysis in this issue, particularly in chapter VI, which deals with economic growth and general economic well-being. For the next issue, even more analysis is planned, particularly of the Economic Censuses for 1977; they are in the final stages of processing by the Bureau of the Census, but for the most part were unavailable for this edition.

Those who find this Abstract useful are advised to consult the Economic Report of the Governor, which also appears annually. The Economic Report offers a good description of the state's economy as well as the most recent economic forecast.

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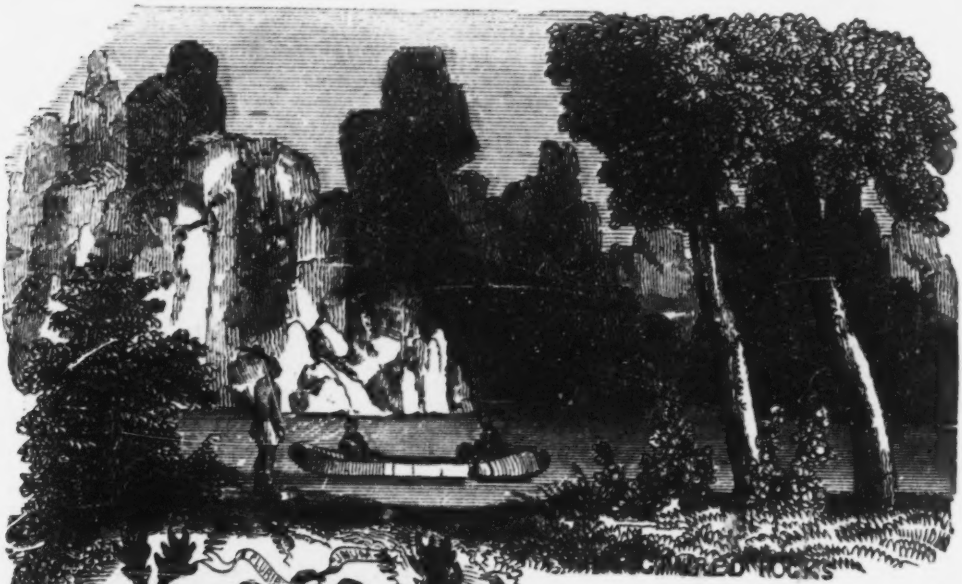

MICHIGAN.

This state consists of two great peninsulas, and presents a form and position unlike any other state in the Union. It might be compared with Maryland and Virginia, in respect to the separation of its parts by water; but it is different from them in lying far in the interior, and in having for its principal boundaries the borders of three great lakes. It has Lake Superior on the north, with its outlet and the Saut de Sainte Marie on the northeast; Lake Huron on the east, with the west end of Lake Erie on the southeast, with Lake Clair and the outlet of Huron, Ohio and Indiana on the south; Lake Michigan and Wisconsin on the west.

The advantages offered to commerce and trade by the natural features of the country, and to internal improvements, are equalled only by the agricultural facilities and mineral wealth of some parts of the territory. There are several good harbors along the borders of the lakes and their coves, which also abound with fish; copper mines, of great extent and richness, abound along the shores, on Lakes Huron and Superior; and railroads have already been constructed nearly across the isthmus of the grand peninsula.

This grand peninsula is divided into two inclined planes, by a continuation of the ridge of land which separates the water of the Wabash and the great Miami and Maumee—one of them sloping toward Lake Huron, drained by the rivers Raisin, Huron, Erie, Rouge, Huron of St. Clair, Bell, Black, Saginaw, Thunder, Cheboiang, &c.; and the other sloping toward Lake Michigan, and crossed by

the St. Joseph's, Kalamazoo, Grand river, and many of smaller size. All the rivers have a fall from the table-land. The mouths of these streams generally afford harbors of different depth and size, while few other parts are to be found along the shores, although the depth of the lakes is sufficient for all the purposes of commerce, and canals to facilitate the passage, Detroit river, &c., will hereafter render commerce still more extensive. The whole line of coast on the different lakes, including the sinuosities, is probably one thousand miles. The shores of Superior and Huron are much more irregular than those of Michigan. Saginaw bay is a gulf, sixty miles in length.

In point of soil, the best part of the grand peninsula is in the south, toward Ohio and Indiana, the upper portion being rather barren. The surface is but slightly varied, with a succession of oak-openings and rolling country, often spotted with small hollows and ponds called cat-holes.

History.—This state was first visited by the French from Canada; and Detroit (or "the strait") was founded in 1670. But it was a small town when ceded to the United States by the treaty of Paris. It was not before 1796 that this country was given up to the United States; it was formed into a territory in 1805; in 1812 was occupied by the British troops; recovered in 1813 by General Harrison; and soon after the return of peace, became one of the principal objects of emigration, and was greatly favored by the opening of the Erie canal. Fort Brady was built in 1822, when the settlement of Chippeway county, the north part, commenced.

Population.—In 1820 Michigan contained only 8,896 inhabitants; but in 1830, 28,000; and in 1850, 395,576.

The following remarks on the soil and agriculture of the state, are from a recent number of the American Agriculturist:—

"A considerable portion of the eastern part of Michigan consists of a clay soil, and is well adapted to grass and grazing. This quality of land extends from a point some thirty miles south of Detroit, to near Lake Huron on the St. Clair river, and for about thirty miles in the interior. As we advance westward, the soil, with more or less exception, gradually changes to a gravelly or sandy loam, and in some instances acquires these characteristics to so decided an extent as seriously to interfere with its permanent fertility. This is universally true of the large quantities of the oak-openings, which so generally pervade the interior and western part of the state. These lands will bear a few good first crops; but manures must follow close upon their heels, or exhaustion and sterility are as certain as blighted leaves after autumnal frosts. There are some moderately good corn lands among this class of soils, and most of it excellent for wheat; but all the agricultural vigilance of a long-cultivated country must be generally adopted, or diminished crops will soon drive the occupants into the uncultivated regions still farther west. There are many exceptions to these remarks, and none more so than a considerable part of the beautiful valley of the Kalamazoo, whose rich and gracefully undulating fields, clad with their native burr-oak, give unfailing promise of abundant wheat-fields for years to come.

"There are other and extensive portions of the state, possessing considerable fertility, which yet remain to be occupied, and which, in the inevitable progress of things, will ere long be settled, and swell the tide of her population and wealth, to a respectable approximation toward her elder sisters.

"Sheep husbandry is making considerable progress in the state, and promises soon to furnish no inconsiderable proportion of the aggregate of her occupation. Depredations from wolves seem already to offer no serious impediment to this department of the farmer.

"Wheat is the product of the state, and on this the farmers principally rely for their available exports. Never did their efforts receive a greater reward than the present season. The estimate of several judicious citizens is, that the crop fully averaged twenty bushels per acre over the state. I was informed of

a wheat field containing one hundred acres, which averaged over forty-five bushels per acre, and one measured acre of which produced over sixty bushels. A cargo of this year's crop from Michigan averaged one barrel of flour for every two hundred and twenty-four pounds of wheat."

Within eight years the population of Michigan must have increased at least fifty per cent., while its area of land under cultivation and the amount of its annual product have probably more than doubled. The export of its great staple wheat (either in the berry or in flour), from the last crop will more than quadruple that from any crop prior to 1839. Its annual production of corn and other grains, of cattle and sheep, of wool and the products of the dairy, of ashes, &c., is also very considerable; but wheat is the great staple of Michigan, and will doubtless continue so, unless the ravages of the Hessian fly, now reported as terrible, shall be perpetuated.

The situation of this state is peculiar. Almost surrounded by water, *old* Michigan—the grand peninsula—is bounded on three sides by the lakes Erie, St. Clair, Huron, and Michigan, with the straits connecting them, and having Indiana on the south. The face of the country is remarkably level, and the soil mainly of a decided fertility. The latter may be said to be naturally divided into dry and wet prairie, 'timbered openings' (upland) and a heavy proportion of low, flat, wet land, most of which will be dry enough when thoroughly cleared and cultivated, but which is, as yet, rather swampy—often decidedly so. All around, on the three sides bordering on the lakes and straits, there is a belt of flat land, a little elevated above the water level, and very heavily timbered. Inside of this, the land gradually rises and becomes gently rolling, being divided into "oak-openings (having two or three dozen small and middling oak-trees to the acre, with any quantity of oak-bushes and roots, and an indifferent show of wild grasses); "timbered openings" (on which the oak-trees are much more, and the bushes less numerous); and open "prairies," or vast natural meadows, with heavy belts of forest intersecting and dividing them, usually on the courses of the streams, or on wet marshy ground. The prairies, especially all the largest and finest, are generally found in the southern half of the state, and more of them west than east of a line drawn through its centre. These are pretty easily subdued and abundantly fertile; the oak lands are "brought to" with more labor, but also yield largely both wheat and corn.

Aside from its general depth and fertility, much of the soil is strongly impregnated with lime, which accounts for its partiality to wheat. The low and luxuriously timbered lands (usually with elm, cucumber, basswood, &c.) have not to any great extent been cleared as yet, being most stubborn and least inviting; but here also the soil in the main is strong. Yet even Detroit appears to be closely hemmed in to landward by the primitive forest, which still covers probably five sixths of the nearest hundred square miles.

On the west side of the state, especially around Saginaw bay, there are extensive forests of choice pine; and far in the North is a great abundance of poor land—extensive sterile swamps and marshes, checkered by barren knolls and hillocks. But nobody thinks of settling in that bleak, forlorn region, and the great portion of the soil north of a line drawn through the centre of the state is good, as nearly all south of that line is. Very few states exceed this in agricultural capacity, either in the aggregate, or acre to acre.

The absence of mountains or anything like them through the greater part of the state, is by no means an unmingled good. It is the cause of a palpable deficiency of springs and running streams through the better portion of the state, and of a decided deficiency of navigable waters within the state, though it is so nobly provided with them externally. But this again is compensated to a great extent by the signal facilities everywhere presented for the construction of canals and railroads, especially the latter.

Thus tempted, the state undertook, about the year 1836, the construction of three lines of railroad across the peninsula—the central, stretching hence to Lake Michigan near the mouth of the St. Joseph; the southern, from the Maumee near Toledo due westward; and the northern. On the two former a very considerable beginning had been made when the state fell into pecuniary embarrassments, in part owing to the magnitude of her undertaking, and somewhat to a change in the times. The southern road was arrested; the central road was feebly and haltingly prosecuted, fed by the sale of state lands and the issue of treasury warrants, which sold at a ruinous depreciation; and of the revenue accruing on the completed portion of the road or roads, nearly all was absorbed. Such was the condition of these works when, more than a year since, the state decided to offer the central road, just as it stood, for sale for two millions of dollars of her acknowledged debt, which then was worth in the market something less than one million dollars. The offer was accepted by a club of Bostonians, the payment made, the road transferred, and instantly placed under very different management. The receipts of the completed portion rapidly increased, expenses were curtailed, and the work on the unfinished portion vigorously stimulated, payment therefor being made promptly and in cash. Already the road is in operation to Kalamazoo, more than half way across the state, and it is to be entirely completed at farthest within the next year. Already the finished portion pays a liberal and rapidly increasing profit on its cost to the company, whose stock is at a high premium, and can rarely be bought at all. Already preparations are being made for relaying the old track, now very imperfect, with a new and improved rail; while in the city large purchases of real estate have been made by the company, mainly on the river or strait just below the present centre of trade, including a water-front of sixteen hundred feet, on which a gigantic freight and a passenger dépôt are to be erected, while the track of the railroad to its decreed terminus is to occupy, for a considerable distance, what is now part of the river, which is to be filled in for the purpose. By this means vessels will load and unload directly from the dépôt, whereas now there is a necessity of carting every barrel and bale some two hundred rods, involving serious expense and waste. On these works a large number of men are now employed here.

The southern railroad (a much ruder and less promising work) has been or is to be sold for half a million of dollars of state liabilities, in order that it likewise may be pressed onward to completion.

The usual time of departure from Buffalo is in the evening. Lake Erie is traversed in about twenty-four hours, stopping at Cleveland and Detroit. Passing the beautiful Detroit and St. Clair rivers, and the wide-spreading and difficult flats of the latter, you enter Huron, and stretching along an unbroken wilderness coast for hundreds of miles, passing Saginaw bay and the Thunder bay islands, reach Mackinaw, the resort of all who delight to enjoy a glimpse of its solitary loveliness, or to breathe its pure, cool, and invigorating atmosphere. This (including the time to wood) occupies two days and a half. Thence passing the straits of Michilimackinac, and the Manitou islands, the boat pushes either across Lake Michigan to Sheboigan, Milwaukie, &c., or passing up Green bay, and stopping at, or catching glimpses of, its innumerable islands in all their greenness and beauty, reaches Navarino. Returning through the passage called "Death's Door," and again entering Lake Michigan, the voyage is pursued to Chicago, stopping at Milwaukie, Racine, and Southport—the populous and rapidly-growing creations of the lake commerce and western settlements: thus terminating the voyage where nature and art combine to fix the seat of a great city—now rapidly rising as such, and combining in a remarkable degree the elements of commerce, business, society, and refinement. In short, nothing can exceed the upspringing vigor of such cities as Buffalo, Milwaukie, Racine, and Chicago; and no one can predict

perhaps with too glowing a prospective the destiny of the mighty region now just springing into life and being.

The voyage to Chicago, via Green bay, may be made in five days or less, according to the delays at the places and points of interest on the route. The distance is about 1,350 miles.

Returning, the excursion may be extended, with additional gratification, from Mackinac to the Sault St. Marie, or even far up into Lake Superior and the mineral region. At least the trip to Chicago should be taken by all who desire to understand, not only the breadth and scope of these inland waters, and the cities on their borders, but the teeming population—the great and rapidly-advancing free states—to which they afford the avenues of a commerce and intercommunication, already of gigantic extent, and the mighty progress of which the most sanguine may not fully predict.

Lake St. Clair.—The St. Clair flats are formed by the division of the waters which issue from Lake Huron through the St. Clair river, by two or three low marshy islands, forming three or four channels or branches, within and just below which division the water, being wide, has in some places a depth of only six or eight feet, or something less than a steamboat will draw, if built stanch enough for the lake trade and tolerably loaded. Of course they generally get aground, and, there being no tide in the lakes, have no choice but to remain aground until a good part of their freight can be transferred to flatboats termed "lighters," which are on hand, ready to be serviceable for a consideration. Fifty thousand dollars well applied here would dredge out a deep and wide channel, and the current is so very gentle that it would not move the sand back again. Yet for want of this fifty thousand dollars (vetoed in the harbor bill), the farmers, whose produce, and the emigrants, whose families, as well as the merchant, whose goods, must traverse the lakes—are put to an expense, including that of delays, probably not less in one year than the entire cost of dredging out a clear and durable channel. Such is one of the many grievances which impelled the people of the west to ask their fellow-citizens generally to meet them in convention at Chicago, in 1847, to consider the general subject of river and harbor improvement.

The banks of the St. Clair river are low and level, generally well wooded, except where settlement has driven back the forest for a mile or less. The British side appears highest, driest, and most settled. A part of it has been peopled by white men for fifty or sixty years—as a good part of *our* bank of the Detroit river and Lake St. Clair has for even a longer period. The old settlers are of French origin, and are wedded to old customs; they are seldom seen out of their settlements. The largest and most active village on either side for a hundred miles above Detroit is Newport, in St. Clair county, famed for steamboat and ship building. Saginaw, a thrifty lumbering village at the bottom of Saginaw bay, much further up, is larger, but far away from the steamboat route to Mackinac or the Sault.

Detroit.—This city is situated in latitude 42° 20′ and longitude 6° west of Washington, on the shore of Detroit river, which is the outlet of Lake Huron into Lake St. Clair, which lies midway between it and Lake Erie. The river is above a mile in breadth, and divided into channels by Peach island, and below by Grand Turkey island.

The town stands on an inclined plane, rising thirty feet; most of the streets are regularly laid out at right angles, but obliquely to the bank of the river; there are several fine, broad avenues, and the situation for trade is highly advantageous. It contains the old statehouse, city-hall, a markethouse, eleven churches, four banks, masonic-hall, a land-office, two orphan-asylums, three female academies, several literary societies, and twenty-five thousand inhabitants. The first steamboat arrived here in 1818.

The growth of this city has taken the healthy form of expansion in every landward direction, instead of the too common mode of accommodating an increasing population by filling up the interstices between old houses with new

ones, and putting one on the top of another. Nearly all the dwellings stand healthfully apart, and each surrounded by its little garden or grass and flower plat, evincing a fondness for shrubbery and the minor poetry of nature. Many of the streets are thickly set with rows of young maples, in some instances two rows on one side of a wide avenue, which will in a few years add greatly to the beauty and comfort of Detroit, especially of its favorite promenades. All around are signs of growth and prosperity, to which the development of the mineral wealth of the Lake Superior region has already, though in its infancy, given some impetus, and is destined to give far more. The only counterpoise to this is the removal, last winter, of the state government to a township in Ingham county, named Lansing, seventy miles northwest of Detroit, wherein is the confluence of the Red Cedar creek with Grand river, which latter, however, does not become navigable until far below this. The location on a corner of a county, in a township as yet mainly in primitive wilderness, remote from natural or artificial, present or prospective facilities of travel and transportation, created much surprise at first. Yet the site is pretty central to the whole state, not specially objectionable on any ground, and the selection seems at present to be pretty generally acquiesced in.

Agents transport flour hence by way of the Welland canal, Lake Ontario, the St. Lawrence to Montreal, the railroad, Lake Champlain and the Champlain canal, to Albany and New York, for the present charge from Buffalo to New York.

Monroe is on the right bank of the river Raisin, two and a half miles from its mouth and Lake Erie, and thirty-seven miles from Detroit. It has two banks, a land-office, a courthouse, seven churches, two academies, a reading-room and library of fifteen hundred volumes, and a number of manufactories. The number of inhabitants is about 5,000. Cars set off every day for Hillsdale, through Adrian; and stage-coaches daily for Detroit, and for Toledo, Ohio.

A branch of the university of Michigan is established in Monroe.

Marshall, on Kalamazoo river, at the mouth of Rice creek, is one hundred and thirteen miles west of Detroit. It contains a bank, four churches, an academy, and a number of mills and manufactories, with about 4,000 inhabitants. Cars start daily for Detroit and Kalamazoo.

Kalamazoo.—This town is situated on the left bank of the river of the same name, at the distance of one hundred and forty-six miles west from Detroit, with which it has a daily communication by the railroad. There are three churches, a land-office, a courthouse, and a branch of the university.

St. Joseph's is two hundred miles west of Detroit, on the bank of the river of that name, at its mouth in Lake Erie. A part of the town looks out upon the lake, where is a good harbor. It is a place of increasing importance, and contains a courthouse, three churches, a bank, and a population of about 900. It has daily communication with Chicago by steamboat, and stages run to the Detroit railroad; and stage-coaches run to Chicago through "Michigan city."

Mackinac.—This town is situated on the southeast extremity of Mackinac island. The public buildings are the courthouse, two churches, a school of the American board of commissioners for foreign missions, a Roman catholic missionary school, and a branch of the university. It has over 1,000 inhabitants. The harbor is large enough for one hundred and fifty vessels, and a valuable fishery is carried on, which supplies a considerable export trade, above three thousand barrels of white-fish and trout being sent out annually. A considerable amount of business is annually done in the fur trade.

Mackinac consists of three slight wooden piers, a water street and a back street, with perhaps sixty houses on both. The fort stands to the right of the village, on the brow of the eminence, is built of a porous, shelly limestone, and has a tolerable command of the main passage out of Lake Michigan into Lake Huron; but it happens to be it-

self commanded by a higher eminence, a mile west of it, which the British silently seized and fortified at the outbreak of the war of 1812, placing guns there in battery and summoning our commandant to surrender before he suspected even that war was declared.

Mackinac has a commanding view of Lakes Michigan and Huron, with the surrounding isles, headlands and bays. The air is very pure, and there is some timber, but it is mainly covered with low, shrub-like evergreens—fir, spruce, &c. It is among the coldest spots within the limits of our Union. The apple-tree blossoms, but does not bear there, any more than at the Sault.

The soil is mostly gravelly and rock of a limestone nature. In traversing the island, which is about ten miles in circumference, we find but three farms, and they not much laid under cultivation. Farming, however, must be profitable; a ready market being at hand in the village, which now contains by estimation not far from 1,000 inhabitants, who are mostly engaged in fishing.

The village, within the past five years, has begun to wear a greatly improved appearance, several good buildings having been erected, which are neatly painted, and several new ones now going up. All the upper lake steamers and sail craft stop at the wharf for an hour or two to wood.

Usually there are a number of Indians visiting the village from the main shores. They come in their bark canoes, freighting poles, bark, and matting, for a temporary wigwam. They pitch their tent on the beach during their stay, and are gazed at most intently by the passengers. Apparently they are all happy. Songs and laughter emanate from them in the evening, echoing over the broad expanse of waters. Many of the "curiosity" wares are made by the squaws, and bartered with the merchants for provisions. The sales of these curiosities to strangers can not be less than $15,000 annually.

The imports of the place are now estimated at $150,000 annually. The exports for a great number of years have been mostly furs. This trade declining, fish has taken their place. The merchants are interested in the business—all of them more or less. But few of them, however, are engaged in catching them. They generally sell or let nets, furnish barrels and salt, and then purchase of the fishermen after they are packed.

FISH PACKED AT MACKINAC AND VICINITY.

Year.	White-Fish. bbls.	Trout. bbls.	Total. bbls.
1835	1,200	—	1,700
1837	—	—	1,600
1840	3,250	750	4,000
1841	4,500	500	5,000
1842	6,275	1,425	7,700
1843	9,800	2,110	11,910
1844	12,200	3,575	15,775
1845	15,150	4,270	19,420
1846	16,000	4,000	20,000

These fish were packed and shipped from this place, and were taken at St. Croix, Grande Traverse, Little Traverse, L'Arbre Croche, and fishing grounds adjoining. It will be seen that the trade is flourishing, and in a little over ten years has increased from 1,700 barrels to 20,000.

The fishing, however, on the upper lakes, is not confined to this place and vicinity. Other points on Lakes Huron and Michigan are profiting by it. We append the statistics of the business at

SAULT ST. MARIE AND LAKE SUPERIOR.

Year.	White-Fish. bbls.	Trout. bbls.	Total. bbls
1835	—	—	2,300
1837	—	—	6,100
1840	8,000	4,000	12,000
1841	7,000	3,000	10,000
1842	7,500	3,000	10,500
1843	2,500	500	3,000
1845	2,100	250	2,350
1846	1,550	175	1,725

During the years 1841 and 1842, the American Fur Company met with heavy losses in the fish trade on Lake Superior, and they abandoned the business. Since then it has been carried on by various individuals on a small scale, and will not probably regain its former flourishing condition until a canal is constructed around the falls of St. Marie.

On the St. Mary's river, in the neighborhood of St. Joseph's, on the British side, the business is carried on largely, which goes to the Canada market. The

catch is generally from 6,000 to 8,000 barrels yearly.

At Beaver island and vicinity, on Lake Huron, a large quantity is taken annually. A gentleman in the trade is of opinion that 10,000 barrels will be packed this season.

At False Presque isle, Thunder bay, and vicinity, last season, 12,000 barrels were furnished for the Ohio market.

Of the business at Green bay, Drummon's island, Three rivers, the Manistee, Sheboigan and Racine rivers, Saginaw bay, and other grounds, we are without particular information. An old fisherman estimates the quantity packed at these places last season at 20,000 barrels. This is considered a low estimate.

The following is a recapitulation for 1846, in barrels: Mackinac and vicinity, 20,000; St. Marie and vicinity, 1,725; Beaver island and vicinity, 10,000; Presque isle, Thunder bay, &c., 12,000; other places on Lakes Huron and Michigan, 20,000; Canada side, estimate, 15,000; total, 78,725.

In addition to barrelling, at several points, large quantities are boxed daily in ice and shipped to Chicago, Milwaukie, Detroit, Toledo, Cleveland, and Buffalo, on sale. The sales at Mackinac for the consumption of steamers passing, is no small item. It amounts to not far from one hundred dollars' worth per week. The whole catch of all the lakes may, therefore, be safely estimated at 100,000 barrels. When an access to Lake Superior is easy by canal, that almost unexplored lake will annually furnish an equal quantity.

The number of barrels required gives employment to at least three to four hundred persons in their construction. The salt consumed is an item of consequence to commerce, and the freight is worthy of note. The business may now be considered at *half a million of dollars per year*. A canal completed at the Sault would swell it in five years to a million.

ANN ARBOR is situated on both sides of Huron river, forty miles west of Detroit, with which it has daily communication by the railroad, and also with Kalamazoo. It is divided into the upper and lower town by the river, and the elevated ground which it occupies makes the situation a fine one. It contains a bank, courthouse, six churches, and a number of manufactories, with about 3,500 inhabitants.

The *University of Michigan*, situated here, was founded in 1837, and has three professors, about eighty students, and libraries containing about five thousand volumes. The cabinets contain valuable collections made by the state naturalists.

YPSILANTI.—This town also stands on Huron river, which furnishes valuable water-power at this place. Here are several mills and manufactories, four churches, and about 2,500 inhabitants. Railroads afford daily communication with Detroit and Kalamazoo.

JACKSON stands on the right bank of Grand river, seventy-nine miles west of Detroit, and contains about 3,000 inhabitants. The public buildings are a courthouse, four churches, an academy, and the state penitentiary, with a branch of the university. Cars go daily for Detroit and Kalamazoo.

ADRIAN.—This town is on the right bank of Raisin river, at the distance of sixty-seven miles from Detroit, and contains four churches, a courthouse, an academy, a number of manufactories, mills, &c., and a population of about 3,500. Railcars go daily to Toledo, Hillsdale, and Monroe.

Saut de Sainte Mary, or falls of St. Mary (familiarly called the Soo) stands on high ground on the right bank of St. Mary's strait, just below the falls, or rapids. Here are Fort Brady, the trading-house of the American Fur company, three churches, and a courthouse. The population is about one thousand.

The organization of copper companies commenced here in 1845, and during the past year at least one hundred were formed. Many of them are good, but not a few of them will prove mere bubbles. Those who have commenced working on their locations meet with great encouragement. Eight hundred and ninety-six permits for location have been granted by government. The companies that have actually commenced

work, or have left men in charge as settlers, are entitled to pre-emption, under the late law for the sale of the lands. Of this class, there are not probably more than twenty-five companies, and they cover much territory, some of them as many as twenty-five permits, or sections. Those that hold pre-emptions get their lands at two dollars and a half per acre; the others at five dollars. Rising of twenty companies have expended much money in mining operations—one company over one hundred thousand dollars, and others from five to fifty thousand. Of the ultimate success of their operations, few who have visited the country have any doubt. The enterprise is necessarily attended with heavy outlays at the commencement, for machinery and mining implements.

It is but a few years since nearly all the iron and lead consumed in this country was imported. It was with the utmost difficulty that capitalists could be persuaded to embark in it. The lead mines on the Mississippi lay dormant for years, for want of confidence in their productiveness. The experiment, however, of mining it was tried; and now this country exports the article to various parts of the world, and the stockholders are amassing a great interest on their investments. The copper business is more promising at this time than even lead or iron. Many more have visited Lake Superior and gone into it. The Cliff mine has raised 2,495 tons of native copper and vein-stone containing copper. A portion of it was sent to Boston and Roxbury for smelting. According to a statement based upon the portion smelted, the amount of pure copper is about three hundred tons, at four hundred dollars a ton, worth one hundred and twenty thousand dollars in the aggregate. A shaft has been sunk one hundred and sixty feet below the bed of Eagle river, and a vein of native copper, four feet wide, was found of great richness.

The Eagle Harbor company have opened twenty veins containing native copper and sulphurets. Native silver has been found in the copper ores as tested by Professor Mather. Two hundred tons of ore has been raised from one vein; forty tons of it was shipped to New York last fall, of which the Waterbury (Connecticut) brass foundry smelted five tons and obtained forty-five per cent. of pure copper. An ingot of it was rolled there for platers' use without annealing, which can not be done with even English refined cake-coppers. A smelting establishment has been erected.

The Northwestern company have sunk a shaft to a considerable depth, and a large quantity of vein-stone, containing copper, has been raised.

The Bohemian company commenced exploring their location in 1846. A vein of gray sulphuret, of great richness, was found.

Prince's mine raised a considerable amount of ore, which has been sent to England for analysis. It is supposed that it contained much silver. The bed is worked vigorously this season.

A company in New York and Philadelphia have sent a German geologist up the country, to erect smelting works and a laboratory. There is now a sufficient ore on the shores of the lake, to keep a large establishment at work a year.

The Bruce mine begins in or very near the St. Mary's river, a little above the point at which its name is lost in that of Lake Huron, and where its outlet winds among and is divided by the thousands of islands which chequer the north end of that lake. It is on the British mainland, opposite St. Joseph's island, which is also British territory. The usual route of steamboats is on the other side of this island.

The course of the vein is north forty-five degrees west—neither parallel nor at right angles with the river, but about half way between; the principal development has been made sixty rods from the water's edge. The average width of the whole is over eight feet. It is said to grow richer as it descends.

The ease of quarrying it is wonderful, and can not be overstated; ten thousand tons of this ore may be mined and placed on a dock at the river side, ready for shipment, for less than the cost of

transporting as much ore already raised and dressed from almost any Lake Superior mine to Saut St. Marie, so as to be ready for shipment below. It certainly must be a large estimate to make the cost of delivering ten thousand tons of this ore on shipboard, fifty thousand dollars, or five dollars per ton. If the ore yield but ten per cent. of copper—and it can not be worth less than twenty or twenty-five dollars per ton on shipboard—the profit to be made from working it may thus be roughly computed.

Another vein just opened on this location, not fifty rods west of the vein just described, is about six feet wide on the surface. Nearly a mile further west, on the same location, is a vein eighteen feet wide on the surface, but this is less rich than the worked vein.

The Bruce mines, belonging to the "Lake Huron and St. Mary's river company," are situated on the north shore of Lake Huron, about seventy miles below the Saut, within thirty hours' run by steamer from Detroit; they were discovered, during the early part of last summer, by an exploring party under the direction of Captain Keating, late of the Indian department, her Britannic majesty's service. In addition to the location on which they are situated, the same company have three others, situated either on the shores of Lake Huron or on the banks of the St. Mary's river, and all below the Saut. The Lake Huron and St. Mary's river company was first organized in Montreal, in the early part of November last, and immediately afterward, Captain Keating, accompanied by Mr. Arthur Rankin, of Sandwich, proceeded to the island of St. Joseph, whence the latter gentleman, accompanied by an experienced practical miner, proceeded to the location. After spending two days in examining the veins, &c., he set out in an open boat for the Saut, on the morning of the 20th of November, in order to take the steamer Champion on her last downward trip for the season, having in one day got out a sufficient quantity of ore to fill sixteen barrels, besides several large blocks, one of which weighed six hundred pounds; another weighed about two hundred. Part of the ore was taken to Montreal, and the remainder to New York, whence about a ton was sent to Baltimore to be smelted, where it was found to contain twenty and a half per cent. of pure copper. On the 12th of December last, Captain Keating, with one regular miner and four laborers, commenced operations by sinking a shaft in one of the veins on the location.

Lansing.—The new capital of Michigan is just beginning to assume the appearance of a town, and is pleasantly situated in the northwest part of Ingham county, near the confluence of Cedar and Grand rivers. Population 2,500.

Its recent aspect—the smoking heaps of wood, the blackened surface of the ground, the standing girdlings and board shanties—more readily suggest the idea of some immigrating colony, than the capital of a great sovereign state.

At first view it seems strange that a dense forest, with only here and there an opening, should have been selected as the site for the city. But when understood, one will not think so. The advantages to the state in general by the removal of the capital from Detroit, will be very great. There it was at one side; here it is in the centre of the state, and surrounded by a territory, which, in point of fertility and all other agricultural facilities, is scarcely anywhere equalled.

On the river near the town is abundance of water power.

The new statehouse is not designed for the permanent one, and its plan is therefore not very magnificent. The spot selected for the site is on a pleasant elevation above Grand river. The foundation of it is laid, fronting on the river ninety-seven feet, and sixty deep. The basement story is of stone, and is designed for offices, &c.; the superstructure is of two stories, for the two houses of the legislature.

There is no stone on the soil; but an abundance of stone convenient for building is found in the river.

New roads are opened, and settlers fast coming in; and what was formerly regarded an obscure by-place, will soon

be the point for news and intelligence for all this vicinity. A line of stages now communicates between this place and the railroad at Jackson, and the trip from Detroit is easy.

The *Illinois and Michigan Canal* extends from Chicago, on Lake Michigan, to La Salle, at the head of steamboat navigation on the Illinois river, a distance of one hundred and five miles. The canal is constructed the same size as the proposed enlargement of the Erie canal of New York—the water being six feet in depth and sixty feet wide at its surface. The locks are one hundred and ten feet long between the gates, and eighteen feet wide, admitting the passage of boats conveying one hundred and fifty tons burden. Upon the original plan, this canal was to be supplied with water drawn from Lake Michigan. It is now constructed with the summit level raised eight feet above the surface of the lake; and the supply of water is obtained, in part, through a feeder about seventeen miles long, from the Culmet river, and in part by introducing the Des Plaines river, which runs a considerable distance along the side of the canal, and the surface of which is on a level with the water in the canal at the summit.

These two sources will supply, in all ordinary seasons, a sufficient quantity of water for a maximum trade on the canal; but in seasons of extreme drought there will be a deficiency of 3,300 cubic feet per minute; and to supply this periodical deficiency, two steam-engines of one hundred and sixty-three horse power each, are in course of erection at the junction of the canal with the Chicago river, five miles south of the city of Chicago. The power of these engines is to be applied in part to cast-iron cylinder-pumps of four and a half feet diameter, and in part to a wheel with float-boards, working in a tight chamber, to raise the water from the river (which is here on a level with the lake) eight feet in height upon the summit level. The surplus power, above that which may be required to these pumps, &c., as well as when the pumps are not required, it is proposed to apply to some kind of manufactures.

The canal occupies the channel of the Chicago river for five miles from the lake; it then rises by a lock of eight feet lift, to the summit level; thence to the first lock at the south end of the summit, is twenty-seven miles, or three miles above Lockport. From this point the canal descends along the valleys of the Des Plaines and Illinois rivers, by fifteen locks, overcoming a fall of one hundred and forty feet. At the distance of twenty-four miles from Chicago, the extensive rock excavation commences, and extends nine miles in length, varying in depth from four to twenty feet, making an average depth of fifteen feet. The excavation of this amount of rock has cost an immense sum, but by raising the summit level eight feet, a very great additional amount of rock excavation has been avoided.

On the final completion of the canal, the immense piles of rock, which had lined the canal banks, became available for the people of Chicago to Macadamize and improve their streets, pave their sidewalks, and in brief, for building purposes generally.

This canal has very few mechanical structures in proportion to its length. There are but four aqueducts, and only ten stone arch culverts, of eight to twenty feet span, and two stone dams, one across the Des Plaines, and one across the Du Page river. The whole of the canal has been constructed in the most thorough and permanent manner, and reflects great credit upon the skill and scientific acquirements of the engineer-in-chief, William Gooding, Esq.

One important feature of this canal, and of canals in general, over other modes of communication, is the water power which they create for manufacturing purposes, the effect of which is to increase directly the amount of business on the canal, by the transportation of the raw materials and of the manufacturing products, but it has a further effect in its influence upon the more speedy settlement of the country, and the development of the agricultural and mineral resources of the country adjacent to these lines of improvement.

It is estimated that above the town of

Joliet there will be eighty-four runs of stone, on a fall of sixty feet; and below that place, forty-five runs, on a fall of the same amount; making one hundred and twenty-nine runs of stone. This quantity of power may be increased by using the whole force of the steam power, to raise the water eight feet high from the Chicago river, and discharging this additional quantity of water at the south end of the summit level over a fall of sixty feet.

Of course it is impossible, from the rapidity with which this western country is filling up with inhabitants, and not of being able to foresee to what extent changes may take place in the present roads and routes for the transportation of the great interior commerce of the west, to make any definite calculations as to the amount of business which may be done on this canal. The following exhibit has been prepared by a person who is well acquainted with the subject. It is intended as an estimate of the amount of business and toll on this canal for the second year after its completion:—

		Tolls.
Lumber -	33,472,000 feet.	$33,472
Salt - -	207,700 bbls.	37,386
Flour - -	400,000 "	60,000
Wheat -	2,257,000 bush.	100,650
Sugar, molas's, and tobacco	8,625 hhds.	10,781
Merchandise	38,298 tons.	76,576
All other articles - - -		45,000
Total - - - -		$364,865

Sheep.—Grain has been considered the principal staple of export. To this we may now add wool-growing. As early as 1834, the farmers of Macomb county gave attention to it—particularly in the towns of Shelby, Washington, Bruce, and Armada. They led in the introduction of sheep into the territory, and have continued ever since to increase their flocks in quality and number. The state census of 1837 gave the number in that county at 5,365 head, which was then over one quarter the number in the state; the whole then being but 21,684.

The United States census taken in 1840, only three years after, gave the number at 89,934. During the years of 1840 and 1841, a company of gentlemen from Vermont took into the counties of Kalamazoo, Van Buren, and Eaton, over 25,000 head, and left them with the farmers on shares. During the same years, many of the more thrifty farmers sent out to Ohio and obtained many thousands, and sold them in the western counties. Among others, Rev. John D. Pierce was zealously and patriotically engaged in getting into Calhoun and vicinity the best breeds. Mr. Pierce sent east and to Ohio for some four or five thousand, which he sold to his poorer neighbors, on time sufficient for the fleece that could be obtained, would enable them to pay. In those times, a majority of our farmers were poor, for it took two or three years to get a dollar surplus. Most of those to whom Mr. Pierce sold, are now large growers. The increase since 1840 has been almost beyond belief. Thousands after thousands have been driven from other states—western New York sending her full quota of the best of Merinoes and not a few Saxonies.

During this time a large number of cloth-dressing establishments have been erected, and some dozen woollen factories, in various parts of the state. The largest are at Pontiac, Ypsilanti, Ann Arbor, Jackson, and Marshall. The wool now manufactured into cloth in the state can not be far from 500,000 pounds, including the home-made flannel.

The present number of sheep can not be estimated at less than 600,000. The crop averaging three pounds each, would give 1,800,000 pounds. The whole averaging twenty-four cents to the pound, give a total of $432,000. Of this quantity, say—home consumption 500,000 pounds; for export 1,100,000 pounds.

We are borne out in this conclusion by the exports of past years, and increase of sheep.

The exports were—in 1841, 23,000 pounds; in 1844, 256,407; in 1845, 412,081; in 1846, from Detroit, 506,103; from Monroe, 84,424; from St. Joseph, 4,000; from Toledo, 124,600: making a total of 716,587 pounds.

This season a large number of eastern manufacturers are in market, particularly for the coarser kinds, the new tariff having done away the duty of five per cent. on foreign coarse wools, that cost abroad seven cents and under, and made a uniform duty of thirty per cent., which tends to keep the harsher qualities from coming from South America to compete with ours. Another branch of manufacture of which wool of the coarser qualities is a component part, has sprung up at the east—*Mousseline de Laine.* Eight or ten large factories have been erected. For years this class of goods has been supplied from France and England. One of these establishments at Nashua, New Hampshire, will use a million of pounds annually. This new branch of industry will add five millions of pounds to the consumption yearly. The Bakewell, English, and South Down sheep, having long wool, are preferred, as it has to undergo a combing process.

Farmers say it is more profitable to raise wool, at present prices, than to grow wheat at sixty-two and a half cents a bushel. Sheep do not exhaust land, but, on the other hand, fertilize it. If it can be grown at the east with profit, where the very interest on the land is more than the purchase of pasturing in this state, the west, in a short time, will supplant the east in its production entirely. Since the west has gone into the business, mark the increasing quantity that has passed through the Erie canal.

The following is a statement of the arrival of wool at tide water on the Hudson river, and average price :—

Year.	Pounds.	Value.	Price.
1840,	2,876,000	$1,150,400	40 cts.
1842,	3,355,000	1,004,554	30 "
1843,	6,216,400	1,678,428	27 "
1844,	7,672,300	2,519,474	38 "
1845,	9,504,039	2,946,252	31 "
1846,	8,866,376	2,571,415	29 "

The amount of wool which arrived at Buffalo from Michigan, in 1844, was 256,407 pounds; in 1845, 412,081; and in 1846, 716,587.

Wool has also become an article of foreign export, there being no duty on [illegible] in England. The project was never [illegible]ied till 1844, when about 300,000 pounds went from Boston and New York. The quantity has annually increased since.

In almost every village of this state there are wool-buyers. In the principal ones, eastern manufacturers have agents.

The Pictured Rocks of Lake Superior.—The southern shore of Lake Superior is distinguished by long ranges of inaccessible rocks, which form a hopeless obstacle to the unhappy navigator driven before a northerly storm. For miles there is not a spot to be found where even a canoe can effect a landing, or where a man could climb up the lofty perpendicular banks, to escape destruction. The water is deep quite up to the base of the cliffs, and the region is shunned, especially in bad weather.

In some places, however, where a small accessible point has been found, the Indians formerly made their landing-places; and remains of their rude drawings are still traceable upon the precipices far upon the shore. One of the most remarkable of these is represented in the vignette. The cliffs are high, bold, and apparently perpendicular; but their faces are marked with drawings of different figures, explicable only by members of the tribe or nation by which they were inscribed, but all significant parts of a record capable of distinct interpretation only by those acquainted with the secrets of the system.

The figure of an animal is usually the token, or armorial representative, of some tribe, family, or individual; and rude drawings of objects are expressive of things or actions connected with them. By the aid of native interpreters, the inscriptions on some, it is said, have been discovered to refer to a great Indian military expedition against a nation on the north side of the lake, to which the pictured rocks of the Mississippi also relate.

The following description of a visit to this remarkable spot, by a gentleman engaged in surveying the upper peninsula of Michigan, for the United States government, will be interesting to the reader :—

"I had passed and repassed the 'Grand Portal' of the pictured rocks, three dif-

ferent times, and had once made a sketch of it, but it seems I had never ascertained the extent of its interest. In passing it lately, all the circumstances being favorable, we determined to enter the arch with our boat; and though our mast was only about sixteen to eighteen feet high, still the feeling, as we approached, was, that we must take it down to be able to pass under the apex of the arch; but drawing nearer, the mast seemed to shrink, and the arch to tower upward, until our sail shook under a vault one hundred and twenty feet high! So much is the eye deceived by a general proportionate grandeur. Entering, we found ample room for a vast ship-of-war, with sails all standing, to conceal herself, turn round, and come out without impediment. Although the water is deep for three fourths of the way, yet at the far end of the cave there is, first, a pile of huge fallen blocks of sandstone; and, beyond these, a sand-beach, fifty to sixty feet wide. Excited by a work so magnificent, I determined to make it my observatory until I had ascertained the form and dimensions as accurately as expedition would permit. For this purpose, and to enjoy the romantic luxury, I resolved on spending a night where I need not call upon the mountains to hide me.

"As there was a spice of danger in passing a night in this palace of the winds and waves, I landed the party to encamp on the sands, near the Doric rock, and was then transported and led in the cave with my nephew and instruments, the voyagers returning with the boat to the encampment. Here we were more securely imprisoned than Napoleon on St. Helena, the only means of escape being to climb over hanging rocks two hundred feet high, or swim half a mile of the lake, with water so cold as to stiffen us in one eighth of that distance, and our provisions, a few sticks of wood which we brought in the boat, and a bucket of bean-soup. But we gave ourselves no anxiety, for we had too much work to perform. Immediately we measured our base line for triangulation, five hundred feet long, all within the cave of the great arch. At this part of the Pictured Rocks there is a table of sandstone about two hundred feet high, presenting to the lake a perpendicular wall of waving and angular outline for several miles. At the Grand Portal, the rock juts out into a short peninsula by two curves which come up like the curves from the shoulders in each side of the neck; at the end it is abruptly truncated as if the head had been cut off. Into this truncated end enters the Grand Portal arch, about one hundred and twenty feet high, and, pentrating about three hundred feet, terminates in two smaller arches. Near the far end, a cross arch, opening on each side of the neck, traverses the main cavern. Thus the ground plan, like that of ancient cathedrals, is a cross; in the portal, however, the head of the cross is double. We ventured to give names to the various apartments: First, the Grand Dome opening in the Grand Portal; second and third, the first and second dormitories; fourth and fifth, the right and left wings of the cross; sixth, the vestry with columns, groined arches, and Gothic windows communicating with the right wing; seventh, the Egyptian labyrinth, consisting of cylindric and groined galleries, supported by peculiar columns, having a distant resemblance to the Egyptian, communicating both with the right wing and with the Grand Dome. The form of the columns is that of two elongated bells, with the two small ends joined to form the middle of the shaft; or, to detail the figure, it is expanded at the top like an inverted bell, contracts rapidly as it descends, and by a gradual curve becomes nearly cylindric for some distance; and again it contracts on a gradual curve till it comes almost to a point, where it meets the same figure reversed. This form is essentially beautiful, being a solid generated by rotation of Hogarth's sigmoid line of grace. To explain the mode of its formation would lead to too long a discussion.

"Our most active and frolicsome half-breed voyager had waded the water, and, without our perceiving him, had entered the labyrinth. To our surprise he thrust his head out of a hole in the Grand Dome, and uttered a hideous

growl. His companions instantly took up the drama of the beast in his den, and hurled a volley of stones at him. Darting back, Legarde presented his head at another opening, and defied his pursuers with a still fiercer snarl; instantly there followed another volley, another evasion, and another peal of laughter echoed back from the dome, I labored hard until dark, and then discovered a new danger in making it my place of rest. I found a great part of the cave to be lined with a shell of stone loosened by the last winter's frost, and ready at all points to fall with crushing force. Going back to the farthest recess of the dormitory arch, I knocked off all the loose stones, propped up my cot on piles of rocks, and composed myself to sleep, not unmindful, as I lay down, that the canopy of my bed was of solid stone, two hundred feet thick, with a forest of fir-trees on top as the ornamental fringe. About midnight I arose, lighted a candle, built a fire, and walked forward with my lantern to the farthest block of stone. Here I gazed at the great star-lighted window presented by the portal arch, and as I stood, the polar star just twinkled on the verge of the opening, making the angular altitude equal to the latitude of the place. Again I lay down in the dormitory and listened to the dirge-like music of the ripple, as it kissed the rocky fragments and danced into the labyrinths. In such situations there is often a mirage of sound as wonderful as that of sight; the discords seem to be absorbed, and the harmonious notes are echoed and reverberated with more enchanting spells than belong to the Æolian; commingled with the dirge one imagines imitations of cascades, hail, rain, and storms. This was the pianissimo; while the fortissimo would be witnessed when the northern storm should drive the thunder of the great lake directly into the Grand Portal. Suppose this to have happened while I was a tenant—it was really what I desired. An avalanche of rock sufficient to have crushed a city, had fallen just outside of the left arch, and laid rudely piled to the height of fifty feet. Thither would I have retreated to witness the bloodless battle of the elements; for a long war has been waged between waves and rocks, in which the rocks have so far been obliged to yield. Morning came, and with the dawn myself and nephew were at our work of triangulating. Having completed the survey, and obtained geological specimens of great interest, we returned in the boat which had come from the party on shore, in the afternoon.

"I shall calculate my observations, make drawings of ground-plan and elevations, and include them in my report to Dr. Jackson, and through him to the government, that, if they are found worthy of it, they may be published. I need hardly say, that such a curiosity, in such a climate, deserves a visit from the Cincinnatians during the hot months. Within half a mile is a boat harbor, a fine camping ground; and still another half a mile along the land beach, is the Chapel rock, and still nearer, a cascade. Beyond this again is a cascade leaping the top of the Pictured Rocks clear into the lake, and blowing a blast of wind in all directions from where it strikes the water sufficiently to propel a sail-boat. The Grand Portal is less extensive than the mammoth cave, being a mere fraction of it, but it has some compensating beauties. It has light and a fine breeze, and is at the same time as cool. You arrive at all of its beauties without fatigue, and enjoy, through its three open arches, the most extraordinary landscapes. Through the Grand Portal you see only the shoreless lake; through the western opening of the cross arch a limited but magnificent view of the lake and the Pictured Rocks overhanging its dark blue waters, on whose surface, when calm, those rocks are reflected into a symmetrical counterpart of the original. Through the eastern wing is seen also the lake and the Pictured Rocks dying away in well-marked perspective, as one point sinks behind the other, to the distance of ten miles. In the course of this perspective is the cascade of Chappel river, the Chappel rock, and the cascade of the winds. This cross arch is five hundred feet long, and so straight that light is seen through it from one side to the other. Mr. School-

craft passed through it with his boat: but the lake having fallen about four feet it is nearly dry, and the only entrance by water is by the Grand Portal."

The emigration to Michigan is now larger than for years past. Every part of the peninsula wears a new aspect to what it did five years since. The log houses have given way to fine brick and pine dwellings, ornamented with paint, and the windows bedecked with blinds or tasty curtains. The slab sheds are hardly known. Large barns have taken their places. Where the wolf prowled undisturbed, herds of sheep are seen—the bleating of the frolicsome lambs is heard, where the doe had full sway. You can scarcly ride on any road that has been open for five years, that is not lined on either side with grain. The whole country has the appearance of a fifty years' settlement. Enterprise and industry are everywhere prevalent.

The advantages that Michigan offers to the emigrant, are clearly set forth in the following statements :—

"First. We are surrounded with water communication for hundreds of miles, with noble streams that are navigable, and from its tributary waters into the lakes. From the mouth of each the canvass wafts the staff of life to the east.

"Second. We have avenues of art, binding with solid iron, as by links, the centre and southern counties from one extremity to the other, while the north for some distance equally enjoys the benefit of iron horses to forward their surplus to a shipping point.

"Third. No state can boast of better hydraulic power—the summit level being near the centre of the peninsula and its never-failing streams diverging to several points, as though the hand of an engineer had planned their serpentine courses to accommodate every county. View the lines of all the streams of every state in the Union, as laid down on their respective maps, and it is unequalled.

"Fourth. The soil is calculated for the production of almost every species of culture that could be desired north of the tropics.

"Fifth. Our school and university fund exceeds most of our neighbors, for land already sold and that remaining is mostly of the choicest kind. We have our school districts and rapidly-increasing school libraries, in every direction settled. Our state university is already in operation, with professors of the rarest talent for the higher branches. In point of advantages for education, New England or New York are not ahead. In point of intelligence, the last census of the United States places us ahead of nearly every sister state, with two exceptions, as having the least number who can neither write nor read.

"Sixth. A majority of our present population are mostly from New England and New York. The rapid increase of our exports exhibit their industry. No state in the Union, from the organization of the confederacy, has made such rapid strides. It is unparalleled in ancient or modern history.

"Seventh. Our state indebtedness, by the sale of state improvements, has been reduced. The interest on all acknowledged bonds will be paid on the first of January next, and a tax law has been passed to meet it hereafter.

"Eighth. Our exports exceed our imports the past year by over a million of dollars.

"Ninth. Our advantages for marketing our surplus products are far superior to any and all other states west of Buffalo, and they bear a much better price.

"Tenth. We have two months the advantage of our neighbors in the navigation of Lake Erie for eastern shipments, always at a season when produce bears the best prices. In the spring there is generally four weeks after the opening of the lower lakes, that the straits of Mackinac are obstructed with ice, which is invaluable either in a rising or falling market, and some four weeks after the first of November, when the passage to the upper lakes is hazardous, and craft going thither are in danger of not being able to return until the following spring. During all this time, both spring and fall, most of the craft make trips from Detroit to Buffalo, which throws hundreds of them in competition for freight, and transportation is thereby cheapened while it advances at the upper ports."

KEWEENAW
HOUGHTON
ONTONAGON
BARAGA
GOGEBIC
MARQUETTE
ALGER
LUCE
CHIPPEWA
IRON
SCHOOLCRAFT
MACKINAC
DICKINSON
DELTA
MENOMINEE
EMMET
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
ANTRIM
OTSEGO
MONT-MORENCY
ALPENA
LEE-LANAU
BENZIE
GRAND TRAVERSE
KALKASKA
CRAWFORD
OSCODA
ALCONA
MANISTEE
WEXFORD
MISSAUKEE
ROS-COMMON
OGEMAW
IOSCO
MASON
LAKE
OSCEOLA
CLARE
GLADWIN
ARENAC
HURON
OCEANA
NEWAYGO
MECOSTA
ISABELLA
MIDLAND
BAY
TUSCOLA
SANILAC
MONTCALM
GRATIOT
SAGINAW
MUSKEGON
OTTAWA
KENT
IONIA
CLINTON
SHIA-WASSEE
GENESEE
LAPEER
ST. CLAIR
ALLEGAN
BARRY
EATON
INGHAM
LIVING-STON
OAKLAND
MACOMB
VAN BUREN
KALA-MAZOO
CALHOUN
JACKSON
WASHTENAW
WAYNE
CASS
ST. JOSEPH
BRANCH
HILLSDALE
LENAWEE
MONROE
BERRIEN

MICHIGAN

I. POPULATION

Michigan's population grew at a substantially faster rate than the nation's as a whole during the 1940s, primarily as a result of the lure that factory jobs had for the poor in nearby states and the rural South. By the late 1940s, the demand for workers to operate Michigan's production lines had largely abated: Military production was at a low ebb, and the demand for motor vehicles, delayed by the war, had been spent. In 1950 and 1951, the state's population growth was below the national average.

American involvement in Korea renewed the emphasis on production of ground combat and supply vehicles, with obvious implications for the demand for factory labor in the Wolverine State. Again, after the cessation of hostilities, there was a large backlog of civilian demand for automobiles, and factories responded accordingly. The Michigan population grew by 15 percent between 1951 and 1956, compared with 9 percent nationally.

The 1956-1962 period was languid, economically, for the nation; it was especially painful for Michigan because of the very low demand for durable goods, particularly motor vehicles. This state's population growth lagged the nation's in each of those six years, the total increase a mere 6.2 percent compared with 10.5 percent nationally.

After 1962, Michigan prospered as the nation recovered economically, began investing in new factories and equipment at record levels, and renewed its love for the motor car. The expanding conflict in Vietnam depended less on ground vehicles than on air power, ships, and explosives. Michigan, no longer the "arsenal of Democracy," as it was known during World War II, nevertheless enjoyed a high level of prosperity and offered well-paying factory jobs. Manufacturers, as they had during the 1940s and again during the Korean War and its aftermath, even recruited labor, particularly from southern states, to keep the production lines humming. Between 1962 and 1967, Michigan's population grew by 8.8 percent, the nation's by 6.3 percent.

By and large, Michigan's economy has grown less rapidly than the national average since the mid-1960s. There has been a de-emphasis of industries in which this state specializes, and some low-skill jobs have been lost to the South, where labor is less expensive. The combination of slack demand here and increased job availability below the Mason-Dixon line has, to a considerable extent, stanched the inflow of relatively unskilled labor.

With the exception of Wisconsin, all of the states bordering on the Great Lakes have experienced population attrition through migration since 1970, the last definitive enumeration. In all of these states, as in the nation as a whole, the number of children has declined. But whereas the number of those under age five declined by 10.5 percent nationally between 1970 and 1978, the drop in New York state was 26.3 percent; New Jersey, 23.3 percent; Pennsylvania, 22.8 percent; Ohio, 19.4 percent; Wisconsin, 17.6 percent; Minnesota, 17.4 percent; Illinois, 14.5 percent; and Indiana, 13.8 percent. The Michigan rate of decline was 19.4 percent. The pattern for the 5-17 age group is much the same, except that Minnesota's decline was 5.6 percent, compared with 8.6 percent for the United States as a whole. The Michigan decline for that age category was 12.1 percent.

In the group 18-44 years old, Michigan recorded a 20.3 percent gain, exceeded by only Wisconsin and Minnesota among the Great Lakes states. The national figure was 21.0 percent.

Population Distribution

1970

ONE DOT EQUALS 1,000 PERSONS
OUTSIDE URBANIZED AREAS

The Michigan population aged 45-64 inched ahead by .9 percent, compared to 4.8 percent nationally. New York, Pennsylvania, Ohio, and Illinois lost population in this age group.

The senior population growth rate for Michigan (15.7 percent) was exceeded by New Jersey (18.8 percent) and, among the Great Lakes states, by Wisconsin (16.0 percent). The ranks of the nation's over-64 population grew by 20.4 percent.

These figures are based on estimates published by the Bureau of the Census, along with data from the 1970 Census of Population.

Since 1930, census day has been 1 April; in 1920 it was 1 January, and in 1910 it was 15 April. Between 1830 and 1900, census day was 1 June. For 1820, the first census day was 7 August.

Apportionment of the U.S. House of Representatives is based on population, hence the constitutional mandate to conduct a census of the nation's inhabitants every ten years. The size of the population, or certain components thereof, also is an important factor in the distribution of various federal monies to states and local units of government, as well as of state monies to local units. The issuance of liquor licenses and other types of business permits is based on population. Businesses apply population data to developing marketing strategies.

Despite the best efforts on the part of organizations inside and outside government, some people are not counted. Individuals are missed in the decennial censuses because they have no regular domicile where they can be reached, they fail to report the fact of their existence to authorities either deliberately or through ignorance, or they intentionally elude the census for one reason or another.

For the nation as a whole, the percentage of net undercounting among various population segments was estimated by the Bureau of the Census to be:

	White		Black and other minorities	
Age group	Male	Female	Male	Female
Under 35 years	2.4	1.6	8.1	5.1
35 to 64	2.9	0.8	13.3	4.8
65 and older	1.2	2.2	-2.8	4.0
Total	2.5	1.4	8.9	4.9

The figures given above pertain to the most recent census, conducted on 1 April 1970.

By applying information from birth records, death certificates, Medicare enrollments, immigration offices, and previous censuses, the Census Bureau also has developed estimates of the true population count for each state and the extent of the undercounting. For Michigan, the undercounting was estimated to lie in the range of 1.7 to 2.1 percent; that is, between 97.9 and 98.3 percent of the population was counted in the 1970 census. Either estimate of the undercounting is below the national figure of 2.5 percent. The undercounting varies according to age and race categories as follows:

	Under 35 years		35-64		65 and	
	White	Black	White	Black	older	Total
Michigan						
Low	1.5	2.2	1.7	2.0	2.2	1.7
High	1.7	5.7	1.8	4.3	5.2	2.1
United States	2.0	6.6	1.9	2.3	1.8	2.5

The high-low variation is a function of differing assumptions about coverage rates for interstate migrants and for those who still reside in their state of birth.

Michigan's undercounting was greater than that for any other state in the Great Lakes region and below that for most southern and western states. The undercounting was greatest in New Mexico, ranging between 7.8 and 9.2 percent. For Wisconsin, the undercounting was negative; that is, the Census Bureau estimates that it counted more people in that state than actually reside there.

The preceding analysis is based on Bureau of the Census, Current Population Reports, Series P-23, no. 65 (Washington, D.C.: U.S. Government Printing Office, 1977).

Urban and rural were redefined in 1950. According to the current definition, the urban population comprises all persons living in (1) a place of 2,500 inhabitants or more incorporated as a city, borough, or village; (2) the densely populated, settled urban fringe, including both incorporated and unincorporated places, around cities of 50,000 or more; and (3) unincorporated places of 2,500 inhabitants or more, and in other areas classified as urban under special rules relating to population size and density. The rural population is that remaining of the total after the above definition is applied.

Table I-3 lists all incorporated places in Michigan along with those not incorporated but having a population of 1,000 or more. Numerous places, such as Ada in Kent County and Temperance in Monroe County, are listed by the Department of State Highways--for example, on the Official Highway Map--as places of 1,000 or more, but are not listed in the Census of Population. Only places recognized by the census are listed in Table I-3.

The Census Bureau also estimates the population of states for intercensal years. These estimates, reproduced in Table I-2, are based upon formulas that incorporate data on known births and deaths, school enrollments, automobile registration, and other factors thought to reflect population. Other techniques are used to produce estimates of net population flows, that is, net migration statistics, which are shown in Table I-7. County intercensal population estimates (shown in Table I-6) are prepared jointly by the Bureau of the Census and the Information Systems Section, Office of the Budget, Michigan Department of Management and Budget. This agency was designated by the Governor to work with the Bureau of the Census in implementing and carrying out the Federal-State Cooperative Program.

The Census Bureau also is the agency charged with the responsibility for developing interim population estimates used to distribute federal general revenue sharing monies. The methodology involves the use of births and deaths statistics as well as data reported on federal individual income tax returns. Population estimates are prepared for each unit of government that is entitled to participate in the federal revenue sharing program. The July 1975 estimates for cities and

villages are reproduced in Table I-3.

The Survey of Income and Education (SIE) was conducted between April and July 1976 by the Bureau of the Census in order to update income and poverty statistics for states. The SIE was based on interviews with responsible adults in approximately 158,500 households in the country. Data from the SIE appear in Tables I-14 and I-16, as well as in tables in chapters IV, V, and VI.

The Bureau of the Census also uses the decennial Census of Population to collect a multitude of statistics on sex, age, household relationships, employment, income, and so forth. They are derived from answers to the relevant questions on census forms sent to every household, that is, the same forms used for the population count itself. Data on the housing stock are also collected (see chapter II).

On 1 April 1970 each household was required to answer a limited number of questions pertaining to its human numbers. Other questions were asked of a randomly selected 15 percent of households, and additional others to a randomly selected 5 percent. A few questions were common to both the 15 and 5 percent samples, forming a 20 percent sample. Social and economic population and housing statistics were developed from these data.

"Persons of Spanish language" is a census term that applies to all individuals in families in which at least one parent claims Spanish as the mother tongue, and to unrelated individuals who speak Spanish as a first language. "Persons of Spanish origin" designates people whose heritage is Mexican, Puerto Rican, Cuban, Central or South American, or "other Spanish." Data on persons of Spanish language were derived from the 15 percent sample of households, and those pertaining to persons of Spanish origin from the 5 percent sample. In counties or other subdivisions for which these samples indicate fewer than 400 Spanish-speaking members, data are not published due to statistical unreliability.

A person is classified as white if both parents are white. The race of a person with one white parent is the same as the race of the other parent. The race of the father is used to classify persons whose race is in doubt and persons neither of whose parents is white. The race of a household or family depends on the race of the head. A family classified as Spanish language is one whose head, or wife of head, claims Spanish as the mother tongue.

The number of households (Tables I-13 and I-14) is the same as the number of occupied housing units (chapter II). A household head may be a primary individual (person living alone or the head member among nonrelatives) or head of a primary family. A primary family consists of two or more individuals in the same household related by blood, marriage, or adoption, of which one member is the household head. In primary families in which both husband and wife are present, the husband is considered to be the head of the household for tabulating purposes.

"Foreign stock" includes first generation Americans as well as the foreign born population. Statistics on the foreign born, as were those on persons of Spanish language, were developed on the basis of information collected in the 15 percent sample of households.

The U.S. Department of Justice administers the immigration and naturalization laws of the nation and compiles such data as those shown in Table I-23.

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TABLE I-2. INTERCENSAL ESTIMATES OF THE TOTAL RESIDENT AND CIVILIAN POPULATION OF MICHIGAN AND THE UNITED STATES: 1 JULY 1946-1978

(In thousands)

Year	Civilian population		Total population [a]	
	Michigan	United States [b]	Michigan	United States [b]
1946	5,859	138,385	5,874	140,054
1947	6,065	142,566	6,076	143,446
1948	6,206	145,168	6,213	146,093
1949	6,324	147,578	6,332	148,665
1950	6,397	150,790	6,407	151,868
1951	6,476	151,599	6,497	153,982
1952	6,627	153,892	6,650	156,393
1953	6,806	156,595	6,822	158,956
1954	7,053	159,695	7,066	161,884
1955	7,270	162,967	7,285	165,069
1956	7,452	166,055	7,467	168,088
1957	7,554	169,110	7,569	171,187
1958	7,652	172,226	7,667	174,149
1959	7,750	175,277	7,767	177,135
1960	7,818	178,136	7,834	179,975
1961	7,871	181,123	7,893	182,973
1962	7,909	183,644	7,933	185,738
1963	8,034	186,448	8,058	188,438
1964	8,164	189,085	8,187	191,085
1965	8,336	191,539	8,357	193,460
1966	8,492	193,345	8,512	195,501
1967	8,610	195,181	8,630	197,374
1968	8,677	197,026	8,696	199,312
1969	8,765	199,067	8,781	201,306
1970	8,879	201,722	8,895	203,810
1971	8,951	204,245	8,966	206,206
1972	9,025	206,449	9,040	208,322
1973	9,060	208,089	9,075	209,846
1974	9,103	209,666	9,117	211,371
1975	9,097	211,345	9,111	213,023
1976	9,099	213,006	9,113	214,675
1977	9,135	214,729	9,148	216,383
1978	9,175	216,405	9,189	218,059

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, no. 72 (Washington, D.C.: 1953); no. 304 (1965); no. 460 (1971); no. 468 (1971); no. 727 (1978); and no. 790 (1978); and Bureau of Economic Analysis, Regional Economics Information System.

a. Figures exclude members of the armed forces stationed abroad.

b. U.S. figures exclude Alaska and Hawaii prior to 1950.

TABLE I-1. TOTAL AND URBAN AND RURAL POPULATION OF MICHIGAN AND THE UNITED STATES: CENSUS 1820-1970

Year	Urban		Rural		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
	Previous urban definition					
1820	0	693,255	8,896	8,945,198	8,896	9,638,453
1830	0	1,127,247	31,639	11,738,773	31,639	12,866,020
1840	9,102	1,845,055	203,165	15,224,398	212,267	17,069,453
1850	29,025	3,543,716	368,629	19,648,160	397,654	23,191,876
1860	99,701	6,216,518	649,412	25,226,803	749,113	31,443,321
1870	237,985	9,902,361	946,074	28,656,010	1,184,059	38,558,371
1880	405,412	14,129,735	1,231,525	36,059,474	1,636,937	50,189,209
1890	730,294	22,106,265	1,363,596	40,873,501	2,093,890	62,979,766
1900	952,323	30,214,832	1,468,659	45,997,336	2,420,982	76,212,168
1910	1,327,044	42,064,001	1,483,129	50,164,495	2,810,173	92,228,496
1920	2,241,560	54,253,282	1,426,852	51,768,255	3,668,412	106,021,537
1930	3,302,075	69,160,599	1,540,250	54,042,025	4,842,325	123,202,624
1940	3,454,867	74,705,338	1,801,239	57,459,231	5,256,106	132,164,569
1950	4,166,165	90,128,194	2,205,601	61,197,604	6,371,766	151,325,798
1960	5,085,882	113,056,353	2,737,312	66,266,822	7,823,194	179,323,175
	Current urban definition					
1950	4,503,084	96,846,817	1,868,682	54,478,981	6,371,766	151,325,798
1960	5,739,132	125,268,750	2,084,062	54,054,425	7,823,194	179,323,175
1970	6,553,773	149,324,930	2,321,310	53,886,996	8,875,083[a]	203,211,926

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, United States Summary (Washington, D.C.: 1971), Final Report PC(1)-A1, Table 18.

a. Official population count not corrected for errors found after tabulations were completed. The corrected count is 8,879,862.

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Addison (V)	Lenawee	488	575	595	651	9.4
Adrian (C)	Lenawee	18,393	20,347	20,382	20,497	.6
Ahmeek (V)	Keweenaw	360	265	238	222	- 6.7
Akron (V)	Tuscola	431	503	525	580	10.5
Alanson (V)	Emmet	319	290	362	541	49.4
Albion (C)	Calhoun	10,406	12,749	12,112	13,448	11.0
Algonac (C)	St. Clair	2,639	3,190	3,684	4,145	12.5
Allegan (C)	Allegan	4,801	4,822	4,516	5,240	16.0
Allen (V)	Hillsdale	n.d.	325	385	405	5.2
Allen Park (C)	Wayne	12,329	37,494	40,747	37,701	- 7.5
Alma (C)	Gratiot	8,341	8,978	9,611	9,902	3.0
Almont (V)	Lapeer	1,035	1,279	1,634	1,835	12.3
Alpena (C)	Alpena	13,135	14,682	13,805	15,556	12.7
Alpha (V)	Iron	378	317	282	303	7.4
Anchor Bay Grdns (U)	Macomb	1,127	1,830	2,272	n.a.	n.a.
Ann Arbor (C)	Washtenaw	48,521	67,340	100,035	105,180	5.1
Applegate (V)	Sanilac	244	252	301	381	26.6
Armada (V)	Macomb	961	1,111	1,352	1,627	20.3
Ashley (V)	Gratiot	449	448	521	506	- 2.9
Athens (V)	Calhoun	768	966	996	978	- 1.8
Auburn (C)	Bay	869	1,497	1,919	2,126	10.8
Au Gres (C)	Arenac	442	584	564	909	61.2
Augusta (V)	Kalamazoo	898	972	1,025	1,004	- 2.0
Bad Axe (C)	Huron	2,973	2,998	2,999	3,273	9.1
Baldwin (V)	Lake	835	835	612	693	13.2

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Bancroft (V)	Shiawassee	615	636	724	857	18.4
Bangor (C)	Van Buren	1,694	2,109	2,050	1,878	- 8.4
Baraga (V)	Baraga	942	991	1,116	1,125	.8
Baroda (V)	Berrien	344	488	504	581	15.3
Barryton (V)	Mecosta	445	418	368	469	27.4
Barton Hills (V)	Washtenaw	n.d.	n.d.	390	440	12.8
Battle Creek (C)	Calhoun	48,666	44,169	38,931	41,512	6.6
Bay City (C)	Bay	52,523	53,604	49,449	46,247	- 6.5
Bayport (U)	Genesee	1,209	1,569	2,101	n.a.	n.a.
Bear Lake (V)	Manistee	364	323	376	445	18.4
Beaverton (C)	Gladwin	794	926	954	1,269	33.0
Beechwood (U)	Ottawa	1,567	2,323	2,714	n.a.	n.a.
Belding (C)	Ionia	4,436	4,887	5,121	5,642	10.2
Bellaire (V)	Antrim	693	689	897	1,011	12.7
Belleville (C)	Wayne	1,722	1,921	2,406	3,131	30.1
Bellevue (V)	Eaton	1,168	1,277	1,297	1,680	29.5
Benton Central (U)	Berrien	n.d.	n.d.	8,067	n.a.	n.a.
Benton Harbor (C)	Berrien	18,769	19,136	16,481	15,937	- 3.3
Benton South (U)	Berrien	n.d.	n.d.	4,496	n.a.	n.a.
Benzonia (V)	Benzie	407	407	412	502	21.8
Berkley (C)	Oakland	17,931	23,275	21,879[a]	19,361	-11.5
Berrien Springs (V)	Berrien	1,761	1,953	1,951	1,943	- .4
Bessemer (C)	Gogebic	3,509	3,304	2,805	2,781	- .9
Beulah (V)	Benzie	458	436	461	561	21.7
Beverly Hills (V)	Oakland	n.d.	8,633	13,598	11,842	-12.9

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Big Rapids (C)	Mecosta	6,736	8,686	11,995	15,083	25.7
Bingham Farms (V)	Oakland	n.d.	394	566	523	- 7.6
Birch Run (V)	Saginaw	n.d.	844	932	1,005	7.8
Birmingham (C)	Oakland	15,467	25,525	26,170	23,258	-11.1
Blissfield (V)	Lenawee	2,365	2,653	2,753	3,186	15.7
Bloomfield Hills (C)	Oakland	1,468	2,378	3,672	3,870	5.4
Bloomingdale (V)	Van Buren	465	471	496	482	- 2.8
Boyne City (C)	Charlevoix	3,028	2,797	2,969	3,388	14.1
Boyne Falls (V)	Charlevoix	236	260	347	353	1.7
Breckenridge (V)	Gratiot	985	1,131	1,257	1,375	9.4
Breedsville (V)	Van Buren	239	245	209	191	- 8.6
Bridgman (C)	Berrien	977	1,454	1,621	2,128	31.3
Brighton (C)	Livingston	1,861	2,282	2,457	3,391	38.0
Britton (V)	Lenawee	517	622	697	803	15.2
Bronson (C)	Branch	2,106	2,267	2,390	2,302	- 3.7
Brooklyn (V)	Jackson	862	986	1,112	1,265	13.8
Brown City (C)	Sanilac	878	993	1,142	1,282	12.3
Brownlee Park (U)	Calhoun	n.d.	3,307	2,985	n.a.	n.a.
Buchanan (C)	Berrien	5,224	5,341	4,645	4,927	6.1
Buckley (V)	Wexford	194	247	244	308	26.2
Bunny Run (U)	Oakland	n.d.	1,058	1,391	n.a.	n.a.
Burlington (V)	Calhoun	329	366	314	415	32.2
Burr Oak (V)	St. Joseph	814	867	873	909	4.1
Burton (C)	Genesee	n.d.	n.d.	32,540	34,889	7.2
Byron (V)	Shiawassee	439	542	655	909	38.8

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Cadillac (C)	Wexford	10,425	10,112	9,990	10,930	9.4
Caledonia (V)	Kent	619	739	716	781	9.1
Calumet (V)	Houghton	1,256	1,139	1,007	932	- 7.4
Camden (V)	Hillsdale	380	434	405	490	21.0
Capac (V)	St. Clair	1,104	1,235	1,279	1,409	10.2
Carleton (V)	Monroe	1,039	1,379	1,503	1,617	7.6
Caro (V)	Tuscola	3,464	3,534	4,028	4,390	9.0
Carrollton (U)	Saginaw	n.d.	n.d.	7,300	n.a.	n.a.
Carson City (C)	Montcalm	1,168	1,201	1,217	1,417	16.4
Carsonville (V)	Sanilac	487	502	621	645	3.9
Caseville (V)	Huron	482	659	607	855	40.9
Casnovia (V)	Kent & Muskegon	312	371	403	428	6.2
Caspian (C)	Iron	1,608	1,493	1,165	1,222	4.9
Cass City (V)	Tuscola	1,762	1,945	1,974	2,390	21.1
Cassopolis (V)	Cass	1,527	2,027	2,108	2,008	- 4.7
Cedar Springs (C)	Kent	1,378	1,768	1,807	2,271	25.7
Cement City (V)	Jackson & Lenawee	n.d.	471	531	608	14.5
Center Line (C)	Macomb	7,659	10,164	10,379	9,463	- 8.8
Central Lake (V)	Antrim	692	692	741	783	5.7
Centreville (V)	St. Joseph	879	971	1,044	1,096	5.0
Charlevoix (C)	Charlevoix	2,695	2,751	3,519	3,526	.2
Charlotte (C)	Eaton	6,606	7,657	8,244	9,160	11.1
Chatham (V)	Alger	n.d.	n.d.	246	288	17.1
Cheboygan (C)	Cheboygan	5,687	5,859	5,553	5,649	1.7
Chelsea (V)	Washtenaw	2,580	3,355	3,858	4,291	11.2

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960 AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Chesaning (V)	Saginaw	2,264	2,770	2,876	3,231	12.3
Clair Haven (U)	Macomb	n.d.	1,364	2,177	n.a.	n.a.
Clair Haven W. (U)	Macomb	n.d.	n.d.	1,367	n.a.	n.a.
Clare (C)	Clare	2,440	2,442	2,639	3,110	17.8
Clarkston (V)	Oakland	722	769	1,034	1,138	10.1
Clarksville (V)	Ionia	339	371	346	294	-15.0
Clawson (C)	Oakland	5,196	14,795	17,617	16,055	- 8.9
Clayton (V)	Lenawee	467	470	505	554	9.7
Clifford (V)	Lapeer	330	389	472	499	5.7
Climax (V)	Kalamazoo	524	587	594	907	52.7
Clinton (V)	Lenawee	1,344	1,481	1,677	2,105	25.5
Clio (C)	Genesee	1,963	2,212	2,357	2,595	10.1
Coldwater (C)	Branch	8,594	8,880	9,155[a]	9,722	6.2
Coleman (C)	Midland	1,024	1,264	1,295	1,543	19.2
Coloma (C)	Berrien	1,041	1,473	1,814	2,289	26.2
Colon (V)	St. Joseph	1,000	1,055	1,172	1,170	- .2
Columbiaville (V)	Lapeer	789	878	935	1,255	34.2
Comstock (U)	Kalamazoo	n.d.	n.d.	5,003	n.a.	n.a.
Comstock Park (U)	Kent	n.d.	n.d.	5,766	n.a.	n.a.
Concord (V)	Jackson	730	990	983	1,130	15.0
Constantine (V)	St. Joseph	1,514	1,710	1,733	1,692	- 2.4
Coopersville (C)	Ottawa	1,371	1,584	2,129	2,346	10.2
Copemish (V)	Manistee	255	232	237	399	68.4
Copper City (V)	Houghton	336	293	252	183	-27.4
Corunna (C)	Shiawassee	2,358	2,764	2,829	3,032	7.2

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976 AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Croswell (C)	Sanilac	1,775	1,817	1,954	2,306	18.0
Crystal Falls (C)	Iron	2,316	2,203	2,000	2,105	5.2
Custer (V)	Mason	260	365	320	350	9.4
Cutlerville (U)	Kent	n.d.	n.d.	6,267	n.a.	n.a.
Daggett (V)	Menominee	341	296	366	370	1.1
Dansville (V)	Ingham	433	453	486	532	9.5
Davison (C)	Genesee	1,745	3,761	5,259	6,148	16.9
Dearborn (C)	Wayne	94,994	112,007	104,199	94,588	- 9.2
Dearborn Heights (C)	Wayne	n.d.	n.d.	80,069	76,177	- 4.9
Decatur (V)	Van Buren	1,664	1,827	1,764	1,833	3.9
Deckerville (V)	Sanilac	719	798	817	850	4.0
Deerfield (V)	Lenawee	725	866	834	880	5.5
De Tour (V)	Chippewa	611	669	494	552	11.7
Detroit (C)	Wayne	1,849,568	1,670,144	1,514,063	1,314,206	-13.2
Detroit Beach (U)	Monroe	n.d.	1,571	2,053	n.a.	n.a.
De Witt (C)	Clinton	824	1,238	1,829	2,377	30.0
Dexter (V)	Washtenaw	1,307	1,702	1,729	1,821	5.3
Dimondale (V)	Eaton	774	866	970	1,251	29.0
Douglas (V)	Allegan	447	602	813	730	-10.2
Dowagiac (C)	Cass	6,542	7,208	6,583	5,906	-10.3
Drayton Plains (U)	Oakland	n.d.	n.d.	16,462	n.a.	n.a.
Dryden (V)	Lapeer	476	531	654	816	24.8
Dundee (V)	Monroe	1,975	2,377	2,472	2,699	9.2
Durand (C)	Shiawassee	3,194	3,312	3,678	4,420	20.2
Eagle (V)	Clinton	145	141	175	190	8.6

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
East Detroit (C)	Macomb	21,461	45,756	45,920	42,058	- 8.4
East Grand Rapids (C)	Kent	6,403	10,924	12,565	12,789	1.8
East Jordan (C)	Charlevoix	1,779	1,919	2,041	2,248	10.1
East Kingsford (U)	Dickinson	n.d.	1,063	1,155	n.a.	n.a.
East Lake (V)	Manistee	376	436	512	530	3.5
East Lansing (C)	Ingham	20,325	30,198	47,540	51,395	8.1
East Tawas (C)	Iosco	2,040	2,462	2,372	2,915	22.9
Eastwood (U)	Kalamazoo	n.d.	n.d.	9,682	n.a.	n.a.
Eaton Rapids (C)	Eaton	3,509	4,052	4,494	5,220	16.2
Eau Claire (V)	Berrien	480	562	527	536	1.7
Ecorse (C)	Wayne	17,948	17,328	17,515	14,837	-15.3
Edmore (V)	Montcalm	971	1,234	1,149	1,122	-2.3
Edwardsburg (V)	Cass	616	902	1,107	1,131	2.2
Elberta (V)	Benzie	850	552	542	508	- 6.3
Elk Rapids (V)	Antrim	889	1,015	1,249	1,480	18.5
Elkton (V)	Huron	854	1,014	973	1,136	16.8
Ellsworth (V)	Antrim	369	386	362	433	19.6
Elsie (V)	Clinton	911	933	988	1,075	8.8
Emmet (V)	St. Clair	230	283	297	371	24.9
Empire (V)	Leelanau	251	448	409	440	7.6
Escanaba (C)	Delta	15,170	15,391	15,368	15,502	.9
Essexville (C)	Bay	3,167	4,590	4,990	5,540	11.0
Estral Beach (V)	Monroe	188	254	419	441	5.3
Evart (C)	Osceola	1,578	1,775	1,707	2,084	22.1
Fairgrove (V)	Tuscola	570	609	629	773	22.9

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Fair Plain (U)	Berrien	4,234	3,744	3,680[a]	n.a.	n.a.
Farmington (C)	Oakland	2,325	6,881	10,329[a]	10,999	6.5
Farmington Hills (C)	Oakland	n.d.	n.d.	48,694	54,780	12.5
Farwell (V)	Clare	694	737	777	1,065	37.1
Fennville (C)	Allegan	639	705	811	924	13.9
Fenton (C)	Genesee	4,226	6,142	8,284	10,109	22.0
Ferndale (C)	Oakland	29,675	31,347	30,850	27,401	-11.2
Ferrysburg (C)	Ottawa	n.d.	n.d.	2,196	2,270	3.4
Fife Lake (V)	Grand Traverse	347	218	274	379	38.3
Flat Rock (C)	Wayne	1,931	4,696	5,643	6,463	14.5
Flint (C)	Genesee	163,143	196,940	193,317	169,583	-12.3
Flushing (C)	Genesee	2,226	3,761	7,190	8,360	16.3
Forestville (V)	Sanilac	124	121	110	165	50.0
Fountain (V)	Mason	247	194	156	240	53.8
Fowler (V)	Clinton	675	854	1,020	1,102	8.0
Fowlerville (V)	Livingston	1,466	1,674	1,978	2,368	19.7
Frankenmuth (C)	Saginaw	1,208	1,728	2,834	3,431	21.1
Frankfort (C)	Benzie	1,605	1,690	1,660	1,916	15.4
Franklin (V)	Oakland	n.d.	2,262	3,311	3,319	.2
Fraser (C)	Macomb	1,379	7,027	11,868	13,796	16.2
Freeland (U)	Saginaw	n.d.	n.d.	1,303	n.a.	n.a.
Freeport (V)	Barry	452	495	501	692	38.1
Freesoil (V)	Mason	208	209	186	222	19.4
Fremont (C)	Newaygo	3,056	3,384	3,465	4,776	37.8
Fruitport (V)	Muskegon	638	1,037	1,409	1,427	1.3

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Gaastra (C)	Iron	575	582	479	454	- 5.2
Gagetown (V)	Tuscola	401	376	408	402	- 1.5
Gaines (V)	Genesee	352	387	408	538	31.9
Galesburg (C)	Kalamazoo	1,200	1,410	1,355	1,768	30.5
Galien (V)	Berrien	610	750	691	637	- 7.8
Garden (V)	Delta	399	380	336	385	14.6
Garden City (C)	Wayne	9,012	38,017	41,864	38,510	- 8.0
Gaylord (C)	Otsego	2,271	2,568	3,012	3,391	12.6
Gibraltar (C)	Wayne	n.d.	2,196	3,842[a]	4,113	7.1
Gladstone (C)	Delta	4,831	5,267	5,237	5,063	- 3.3
Gladwin (C)	Gladwin	1,878	2,226	2,071	2,803	35.3
Gobles (C)	Van Buren	622	816	801	1,064	32.8
Goodrich (V)	Genesee	n.a.	701	774	1,094	41.3
Grand Beach (V)	Berrien	105	86	165	203	23.0
Grand Blanc (C)	Genesee	998	1,565	5,132	5,655	10.2
Grand Haven (C)	Ottawa	9,536	11,066	11,844	12,237	3.3
Grand Ledge (C)	Eaton	4,506	5,165	6,032	7,227	19.8
Grand Rapids (C)	Kent	176,515	177,313	197,649	185,588	- 6.1
Grandville (C)	Kent	2,022	7,975	10,764	11,881	10.4
Grant (C)	Newaygo	646	732	772	902	16.8
Grass Lake (V)	Jackson	878	1,037	1,061	1,210	14.0
Grayling (C)	Crawford	2,066	2,015	2,143	1,916	-10.6
Greenville (C)	Montcalm	6,668	7,440	7,493	8,054	7.5
Grosse Ile (U)	Wayne	n.d.	n.d.	8,306[a]	n.a.	n.a.
Grosse Pointe (C)	Wayne	6,283	6,631	6,637	6,139	- 7.5

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES ANL JNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Grosse Pt. Farms (C)	Wayne	9,410	12,172	11,701	14,184	21.2
Grosse Pt. Park (C)	Wayne	13,075	15,457	15,641	13,334	-14.7
Grosse Pt. Shrs (V)	Wayne & Macomb	1,032	2,301	3,042	3,422	12.5
Grosse Pt. Woods (C)	Wayne	10,381	18,580	21,878	20,970	- 4.2
Gwinn (U)	Marquette	n.d.	1,009	1,054	n.a.	n.a.
Hamtramck (C)	Wayne	43,355	34,137	26,783	21,685	-19.0
Hancock (C)	Houghton	5,223	5,022	4,820	4,898	1.6
Hanover (V)	Jackson	377	449	513	577	12.5
Harbor Beach (C)	Huron	2,349	2,282	2,134	2,024	- 5.2
Harbor Springs (C)	Emmet	1,626	1,433	1,662	1,954	17.6
Harper Woods (C)	Wayne	9,148	19,995	20,186	17,777	-11.9
Harrietta (V)	Wexford	152	119	132	120	- 9.1
Harrison (C)	Clare	884	1,072	1,460	2,295	57.2
Harrisville (C)	Alcona	485	487	541	624	15.3
Hart (C)	Oceana	2,172	1,990	2,139	2,061	- 3.6
Hartford (C)	Van Buren	1,838	2,305	2,508	2,643	5.4
Hastings (C)	Barry	6,096	6,375	6,501	7,197	10.7
Hazel Park (C)	Oakland	17,770	25,631	23,784	21,195	-10.9
Hersey (V)	Osceola	239	246	276	469	69.9
Hesperia (V)	Newaygo & Oceana	760	822	877	1,119	27.6
Highland Park (C)	Wayne	46,393	38,063	35,444	31,183	-12.0
Hillman (V)	Montmorency	442	445	366	450	23.0
Hillsdale (C)	Hillsdale	7,297	7,629	7,728	8,246	6.7
Holland (C)	Allegan & Ottawa	15,858	24,777	26,479	28,099	6.1
Holly (V)	Oakland	2,663	3,269	4,355	5,016	15.2

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976: AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Holt (U)	Ingham	n.d.	4,818	6,980	n.a.	n.a.
Homer (V)	Calhoun	1,301	1,629	1,617	2,173	34.4
Honor (V)	Benzie	269	278	282	363	28.7
Hopkins (V)	Allegan	531	556	566	658	16.3
Houghton (C)	Houghton	3,829	3,393	6,067	7,325	20.7
Houghton Lake Hts. (U)	Roscommon	n.d.	1,195	1,252	n.a.	n.a.
Howard City (V)	Montcalm	791	1,004	1,060	1,287	21.4
Howell (C)	Livingston	4,353	4,861	5,224	7,382	41.3
Hubbardston (V)	Clinton & Ionia	335	381	403	421	4.5
Hubbell (U)	Houghton	1,690	1,429	1,251	n.a.	n.a.
Hudson (C)	Lenawee	2,773	2,546	2,618	2,881	10.0
Hudsonville (C)	Ottawa	1,101	2,649	3,523	4,150	17.8
Huntington Woods (C)	Oakland	4,949	8,746	8,536	7,721	- 9.5
Imlay City (C)	Lapeer	1,654	1,968	1,980	2,011	1.6
Inkster (C)	Wayne	16,728	39,097	38,595	31,925	-17.3
Ionia (C)	Ionia	6,412	6,754	6,361	6,411	.8
Iron Mountain (C)	Dickinson	9,679	9,299	8,702	8,580	- 1.4
Iron River (C)	Iron	4,048	3,754	2,684	2,665	- .7
Ironwood (C)	Gogebic	11,466	10,265	8,711	8,338	- 4.3
Ishpeming (C)	Marquette	8,962	8,857	8,245	8,451	2.5
Ithaca (C)	Gratiot	2,377	2,611	2,749	3,106	13.0
Jackson (C)	Jackson	51,088	50,720	45,484	43,540	- 4.3
Jenison (U)	Ottawa	n.d.	n.d.	11,266	n.a.	n.a.
Jonesville (V)	Hillsdale	1,594	1,896	2,081	2,362	13.5
Kalamazoo (C)	Kalamazoo	57,704	82,089	85,555	79,472	- 7.1

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Kaleva (V)	Manistee	346	348	377	454	20.4
Kalkaska (V)	Kalkaska	1,250	1,321	1,475	2,352	59.5
Keego Harbor (C)	Oakland	n.d.	2,761	3,092	3,039	- 1.7
Kent City (V)	Kent	506	617	686	856	24.8
Kentwood (C)	Kent	n.d.	n.d.	20,310	26,029	28.2
Kincheloe (U)	Chippewa	n.d.	n.d.	6,331	n.a.	n.a.
Kinde (V)	Huron	571	624	618	672	8.7
Kingsford (C)	Dickinson	5,038	5,084	5,276	5,443	3.2
Kingsley (V)	Grand Traverse	425	586	632	654	3.5
Kingston (V)	Tuscola	371	456	464	516	11.2
K I Sawyer (U)	Marquette	n.d.	n.d.	8,224[a]	n.a.	n.a.
Laingsburg (C)	Shiawassee	942	1,057	1,159	1,733	49.5
Lake Angelus (V)	Oakland	123	231	573	591	3.1
Lake Ann (V)	Benzie	99	106	172	245	42.4
Lake City (C)	Missaukee	719	718	704	1,002	42.3
Lake Linden (V)	Houghton	1,462	1,314	1,214	1,269	4.5
Lake Mich. Beach (U)	Berrien	n.d.	1,092	1,201	n.a.	n.a.
Lake Odessa (V)	Ionia	1,596	1,806	1,924	2,128	10.6
Lake Orion (V)	Oakland	2,385	2,698	2,921	3,368	15.3
Lake Orion Hts. (U)	Oakland	1,075	1,918	2,552	n.a.	n.a.
Lakeview (U)	Calhoun	n.d.	10,384	11,391	n.a.	n.a.
Lakeview (V)	Montcalm	975	1,126	1,118	1,217	8.9
Lakewood Club (V)	Muskegon	n.d.	n.d.	590	608	3.1
Lambertville (U)	Monroe	n.a.	1,168	5,721	n.a.	n.a.
L'Anse (V)	Baraga	2,376	2,397	2,538	2,541	.1

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Lansing (C)	Clinton/Eaton/ Ingham	92,129	107,807	131,403	126,071	- 4.1
Lapeer (C)	Lapeer	6,143	6,160	6,314	5,673	-10.2
Lapeer Heights (U)	Genesee	n.d.	n.d.	7,130	n.a.	n.a.
Lathrup Village (C)	Oakland	n.d.	3,556	4,676[a]	4,949	5.8
Laurium (V)	Houghton	3,211	3,058	2,868	2,858	- .3
Lawrence (V)	Van Buren	679	773	790	843	6.7
Lawton (V)	Van Buren	1,206	1,402	1,358	1,548	14.0
Lennon (V)	Genesee & Shiawassee	n.d.	n.d.	624	666	6.7
Leonard (V)	Oakland	391	359	378	601	59.0
Le Roy (V)	Osceola	243	267	248	278	12.1
Leslie (C)	Ingham	1,543	1,807	1,894	2,375	25.4
Level Pk-Oak Pk (U)	Calhoun	1,364	3,017	3,080	n.a.	n.a.
Lexington (V)	Sanilac	594	722	834	1,007	20.7
Lincoln (V)	Alcona	409	441	371	491	32.3
Lincoln Park (C)	Wayne	29,310	53,933	52,984	47,315	-10.7
Linden (V)	Genesee	933	1,146	1,546	2,192	41.8
Litchfield (C)	Hillsdale	882	993	1,167	1,406	20.5
Livonia (C)	Wayne	17,534	66,702	110,109	110,516	.4
Lowell (C)	Kent	2,191	2,545	3,068	3,548	15.6
Ludington (C)	Mason	9,506	9,421	9,021	10,029	11.2
Luna Pier (C)	Monroe	n.d.	n.d.	1,418	1,465	3.3
Luther (V)	Lake	314	325	320	384	20.0
Lyons (V)	Ionia	683	687	758	873	15.2
McBain (C)	Missaukee	506	551	520	671	29.0
McBride (V)	Montcalm	223	265	272	243	-10.7

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Mackinac Island (C)	Mackinac	572	942	517	620	19.9
Mackinaw City (V)	Cheboygan/Emmet	970	934	810	851	5.1
Madison Heights (C)	Oakland	n.d.	33,343	38,599	36,354	- 5.8
Mancelona (V)	Antrim	1,000	1,141	1,255	1,465	16.7
Manchester (V)	Washtenaw	1,388	1,568	1,650	1,873	13.5
Manistee (C)	Manistee	8,642	8,324	7,723	8,080	4.6
Manistique (C)	Schoolcraft	5,086	4,875	4,324	4,267	- 1.3
Manitou Bch-Devils Lake (U)	Lenawee	1,273	1,544	1,892	n.a.	n.a.
Manton (C)	Wexford	1,085	1,050	1,107	1,331	20.2
Maple Rapids (V)	Clinton	645	683	683	616	- 9.8
Marcellus (V)	Cass	1,014	1,073	1,139	1,198	5.2
Marine City (C)	St. Clair	4,270	4,404	4,567	5,135	12.4
Marion (V)	Osceola	879	898	891	990	11.1
Marlette (V)	Sanilac	1,489	1,640	1,706	1,965	15.2
Marquette (C)	Marquette	17,202	19,824	21,967	23,606	7.5
Marshall (C)	Calhoun	5,777	6,736	7,253	7,480	3.1
Martin (V)	Allegan	407	483	502	547	9.0
Marysville (C)	St. Clair	2,534	4,065	5,610	6,322	12.7
Mason (C)	Ingham	3,514	4,522	5,468	6,191	13.2
Mattawan (V)	Van Buren	n.d.	n.d.	1,569	2,321	47.9
Maybee (V)	Monroe	428	459	485	555	14.4
Mayville (V)	Tuscola	888	896	872	1,086	24.5
Mecosta (V)	Mecosta	305	303	396	533	34.6
Melvin (V)	Sanilac	204	196	202	251	24.3
Melvindale (C)	Wayne	9,483	13,089	13,862	12,130	-12.5

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Memphis (C)	Macomb/St. Clr	800	996	1,121	1,118	- .3
Mendon (V)	St. Joseph	844	867	949	1,036	9.2
Menominee (C)	Menominee	11,151	11,289	10,748	10,203	- 5.1
Merrill (V)	Saginaw	809	963	961	1,057	10.0
Mesick (V)	Wexford	359	304	376	434	15.4
Metamora (V)	Lapeer	390	452	468	738	57.7
Michiana (V)	Berrien	102	135	233	228	- 2.1
Middleville (V)	Barry	1,047	1,196	1,865	2,139	14.7
Midland (C)	Bay/Midland	14,285	27,779	35,176	37,057	5.3
Milan (C)	Monroe & Washtenaw	2,768	3,616	3,997	4,256	6.5
Milford (V)	Oakland	1,924	4,323	4,699	7,025	49.5
Millersburg (V)	Presque Isle	281	280	200	341	70.5
Millington (V)	Tuscola	1,043	1,159	1,099	1,588	44.5
Minden (V)	Sanilac	359	369	327	343	4.9
Mineral Hills (V)	Iron	333	311	234	259	10.7
Monroe (C)	Monroe	21,467	22,968	23,894	24,466	2.4
Montague (C)	Muskegon	1,530	2,366	2,396	2,743	14.5
Montgomery (V)	Hillsdale	397	362	404	504	24.8
Montrose (V)	Genesee	937	1,466	1,789	2,187	22.2
Morenci (C)	Lenawee	1,983	2,053	2,132	2,128	- .2
Morley (V)	Mecosta	413	445	481	519	7.9
Morrice (V)	Shiawassee	501	530	734	808	10.1
Mount Clemens (C)	Macomb	17,027	21,016	20,476	23,375	14.2
Mount Morris (C)	Genesee	2,890	3,484	3,778	4,152	9.9
Mount Pleasant (C)	Isabella	11,393	14,875	20,504	23,869	16.3

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Muir (V)	Ionia	466	610	617	648	5.0
Mulliken (V)	Eaton	411	484	454	482	6.2
Munising (C)	Alger	4,339	4,228	3,677	3,452	- 6.1
Muskegon (C)	Muskegon	48,429	46,485	44,631	43,923	- 1.6
Muskegon Hts (C)	Muskegon	18,828	19,552	17,304	15,749	- 9.0
Nashville (V)	Barry	1,374	1,525	1,558	2,253	44.6
Negaunee (C)	Marquette	6,472	6,126	5,248	5,396	2.8
Newaygo (C)	Newaygo	1,385	1,447	1,381	1,713	25.3
New Baltimore (C)	Macomb	2,043	3,159	4,132	5,117	23.8
Newberry (V)	Luce	2,802	2,612	2,334	2,500	7.1
New Buffalo (C)	Berrien	1,565	2,128	2,784	2,913	4.6
New Era (V)	Oceana	247	403	466	615	32.0
New Haven (V)	Macomb	1,082	1,198	1,855	2,285	23.2
New Lathrop (V)	Shiawassee	459	510	596	693	16.3
Niles (C)	Berrien	13,145	13,842	12,988	13,687	5.4
North Adams (V)	Hillsdale	499	494	574	645	12.4
North Branch (V)	Lapeer	832	901	932	993	6.5
North Muskegon (C)	Muskegon	2,424	3,855	4,243	4,433	4.5
Northport (V)	Leelanau	582	530	594	581	- 2.2
Northville (C)	Oakland/Wayne	3,240	3,967	5,400	6,199	14.8
Norton Shores (C)	Muskegon	n.d.	n.d.	22,271	21,283	- 4.4
Norway (C)	Dickinson	3,258	3,171	3,033	3,132	3.3
Novi (C)	Oakland	n.d.	6,390	9,668	15,196	57.2
Oakley (V)	Saginaw	333	417	418	439	5.0
Oak Park (C)	Oakland	5,276	36,632	36,762	32,809	-10.8

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Okemos (U)	Ingham	n.d.	n.d.	7,770	n.a.	n.a.
Olivet (C)	Eaton	887	1,185	1,629	1,989	22.1
Omer (C)	Arenac	321	322	366	459	25.4
Onaway (C)	Presque Isle	1,421	1,388	1,262	1,313	4.0
Onekama (V)	Manistee	435	469	638	621	- 2.7
Onsted (V)	Lenawee	486	526	555	798	43.8
Ontonagon (V)	Ontonagon	2,307	2,358	2,432	2,311	- 5.0
Orchard Lk Villg (C)	Oakland	696	1,127	1,487	1,668	12.2
Ortonville (V)	Oakland	702	771	983	1,443	46.8
Oscoda-Au Sable (U)	Iosco	n.d.	n.d.	3,475	n.a.	n.a.
Otisville (V)	Genesee	592	701	724	895	23.6
Otsego (C)	Allegan	3,990	4,142	3,957	4,264	7.8
Otter Lake (V)	Lapeer/Genesee	523	562	551	571	3.6
Ovid (V)	Clinton	1,410	1,505	1,650	1,745	5.8
Owendale (V)	Huron	307	298	312	366	17.3
Owosso (C)	Shiawassee	15,948	17,006	17,179	17,909	4.2
Oxford (V)	Oakland	2,305	2,357	2,536	3,513	38.5
Parchment (C)	Kalamazoo	1,179	1,565	2,027	2,235	10.3
Parma (V)	Jackson	680	770	880	1,010	14.8
Patterson Grdns (U)	Monroe	1,548	1,747	2,169	n.a.	n.a.
Paw Paw (V)	Van Buren	2,382	2,970	3,160	3,092	- 2.2
Paw Paw Lake (U)	Berrien	1,625	3,518	3,726	n.a.	n.a.
Pearl Beach (U)	St. Clair	n.d.	1,224	1,744	n.a.	n.a.
Peck (V)	Sanilac	471	548	580	583	.5
Pellston (V)	Emmet	442	429	469	632	34.8

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Pentwater (V)	Oceana	1,097	1,030	993	1,239	24.8
Perrinton (V)	Gratiot	383	424	489	543	11.0
Perry (C)	Shiawassee	1,203	1,370	1,531	1868	22.0
Petersburg (C)	Monroe	1,001	1,018	1,227	1,467	19.6
Petoskey (C)	Emmet	6,468	6,138	6,342	6,009	- 5.3
Pewamo (V)	Ionia	432	415	498	520	4.4
Pierson (V)	Montcalm	169	219	193	219	13.5
Pigeon (V)	Huron	1,015	1,191	1,174	1,170	- .3
Pinckney (V)	Livingston	695	732	921	1,234	34.0
Pinconning (C)	Bay	1,223	1,329	1,320	1,501	13.7
Plainwell (C)	Allegan	2,767	3,125	3,195	4,502	40.9
Pleasant Ridge (C)	Oakland	3,594	3,807	3,989	3,505	-12.1
Plymouth (C)	Wayne	6,637	8,766	11,758	11,351	- 3.5
Pontiac (C)	Oakland	73,681	82,233	85,279	79,778	- 6.5
Portage (C)	Kalamazoo	n.d.	n.d.	33,590	36,279	8.0
Port Austin (V)	Huron	724	706	883	1,031	16.8
Port Hope (V)	Huron	353	349	377	403	6.9
Port Huron (C)	St. Clair	35,725	36,084	35,794	34,925	- 2.4
Portland (C)	Ionia	2,807	3,330	3,817	4,218	10.5
Port Sanilac (V)	Sanilac	247	361	493	627	27.2
Posen (V)	Presque Isle	274	341	339	295	-13.0
Potterville (C)	Eaton	624	1,028	1,280	1,540	20.3
Powers (V)	Menominee	510	415	560	462	-17.5
Prescott (V)	Ogemaw	281	308	306	455	48.7
Quakertown (U)	Oakland	n.a.	482	837	n.a.	n.a.

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Quakertown N. (U)	Oakland	n.d.	n.d.	7,101	n.a.	n.a.
Quincy (V)	Branch	1,527	1,602	1,540	2,001	29.9
Ramsay (U)	Gogebic	n.d.	1,158	1,068	n.a.	n.a.
Ravenna (V)	Muskegon	551	801	1,048	1,071	2.2
Reading (C)	Hillsdale	1,125	1,128	1,125	1,360	20.9
Reed City (C)	Osceola	2,241	2,184	2,286	2,292	.3
Reese (V)	Tuscola	632	711	1,050	1,255	19.5
Richland (V)	Kalamazoo	389	511	728	865	18.8
Richmond (C)	Macomb	2,025	2,667	3,234	3,848	19.0
River Rouge (C)	Wayne	20,549	18,147	15,947	13,244	-16.9
Riverview (C)	Wayne	1,432	7,237	11,342	13,107	15.6
Rochester (C)	Oakland	4,279	5,431	7,054	9,102	29.0
Rockford (C)	Kent	1,937	2,074	2,428	3,267	34.6
Rockwood (C)	Wayne	1,044	2,026	3,225[a]	3,434	6.5
Rogers City (C)	Presque Isle	3,873	4,722	4,275	4,451	4.1
Romeo (V)	Macomb	2,985	3,327	4,012	4,591	14.4
Romulus (C)	Wayne	n.d.	n.d.	22,879	26,648	16.5
Roosevelt Park (C)	Muskegon	1,254	2,578	4,176	3,731	-10.7
Roscommon (V)	Roscommon	877	867	810	1,245	53.7
Rosebush (V)	Isabella	n.d.	n.d.	439	396	- 9.8
Rose City (C)	Ogemaw	446	435	530	618	16.6
Roseville (C)	Macomb	15,816	50,195	60,529	57,110	- 5.6
Rothbury (V)	Oceana	n.d.	n.d.	394	497	26.1
Royal Oak (C)	Oakland	46,898	80,612	86,238[a]	77,380	-10.3
Saginaw (C)	Saginaw	92,918	98,265	91,849	84,144	- 8.4

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
St. Charles (V)	Saginaw	1,469	1,959	2,046	2,220	8.5
St. Clair (C)	St. Clair	4,098	4,538	4,770	5,003	4.9
St. Clair Shrs (C)	Macomb	19,823	76,657	88,093	85,933	- 2.5
St. Ignace (C)	Mackinac	2,946	3,334	2,892	2,752	- 4.8
St. Johns (C)	Clinton	4,954	5,629	6,672	7,778	16.6
St. Joseph (C)	Berrien	10,223	11,755	11,042	10,957	- .8
St. Louis (C)	Gratiot	3,347	3,808	4,101	4,103	0.0
Saline (C)	Washtenaw	1,533	2,334	4,811	6,531	35.8
Sand Lake (V)	Kent	394	394	380	454	19.5
Sandusky (C)	Sanilac	1,819	2,066	2,071	2,337	12.8
Sanford (V)	Midland	n.d.	n.d.	818	991	21.1
Saranac (V)	Ionia	885	1,081	1,223	1,360	11.2
Saugatuck (V)	Allegan	770	927	1,022	924	- 9.6
Sault Ste. Marie (C)	Chippewa	17,912	18,722	15,136	16,116	6.5
Schoolcraft (V)	Kalamazoo	1,078	1,205	1,277	1,745	36.6
Scottville (C)	Mason	1,142	1,245	1,202	1,368	13.8
Sebewaing (V)	Huron	1,911	2,026	2,053	2,115	3.0
Selfridge Base (U)	Macomb	n.d.	n.d.	1,614	n.a.	n.a.
Selfridge-Capehart (U)	Macomb	n.d.	n.d.	1,694	n.a.	n.a.
Shelby (V)	Oceana	1,500	1,603	1,703	1,896	11.3
Sheperd (V)	Isabella	899	1,293	1,416	1,837	29.7
Sheridan (V)	Montcalm	535	606	653	713	9.2
Sherwood (V)	Branch	362	356	400	451	12.7
Shoreham (V)	Berrien	391	443	666	742	11.4
Shorewood Hills-Flower Hills (U)	Berrien	n.d.	1,330	1,629	n.a.	n.a.

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Southfield (C)	Oakland	n.d.	31,501	69,285	75,085	8.4
Southgate (C)	Wayne	n.d.	29,404	33,909	33,947	.1
South Haven (C)	Van Buren	5,629	6,149	6,471	6,082	- 6.0
South Lyon (C)	Oakland	1,312	1,753	2,675	4,349	62.6
South Monroe (U)	Monroe	2,275	2,919	3,012	n.a.	n.a.
South Range (V)	Houghton	715	760	898	966	7.6
South Rockwood (V)	Monroe	n.d.	1,337	1,477	1,586	7.4
Sparlingville (U)	St. Clair	1,393	1,877	1,845	n.a.	n.a.
Sparta (V)	Kent	2,327	2,749	3,094	3,206	3.6
Spring Arbor (U)	Jackson	n.d.	n.d.	1,832	n.a.	n.a.
Springfield (C)	Calhoun	n.d.	4,605	3,994	5,453	36.5
Springfld Place (U)	Calhoun	n.d.	5,136	4,831	n.a.	n.a.
Spring Lake (V)	Ottawa	1,824	2,063	3,034	2,799	- 7.7
Springport (V)	Jackson	598	693	723	934	29.2
Stambaugh (C)	Iron	1,969	1,876	1,458	1,395	- 4.3
Standish (C)	Arenac	1,186	1,214	1,184	1,390	17.4
Stanton (C)	Montcalm	1,123	1,139	1,089	1,516	39.2
Stanwood (V)	Mecosta	189	205	241	327	35.7
Stephenson (C)	Menominee	791	820	800	721	- 9.9
Sterling (V)	Arenac	444	470	507	605	19.3
Sterling Heights (C)	Macomb	n.d.	n.d.	61,365	91,811	49.6
Stevensville (V)	Berrien	480	697	1,107	1,212	9.5
Stockbridge (V)	Ingham	1,098	1,097	1,190	1,317	10.7
Stony Point (U)	Monroe	n.d.	n.d.	1,370	n.a.	n.a.
Sturgis (C)	St. Joseph	7,786	8,915	9,295	9,354	.6

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Sunfield (V)	Eaton	400	626	497	652	31.2
Sunrise Heights (U)	Calhoun	1,094	1,569	1,626	n.a.	n.a.
Suttons Bay (V)	Leelanau	485	421	522	568	8.8
Swartz Creek (C)	Genesee	n.d.	3,006	4,928	6,601	33.9
Sylvan Lake (C)	Oakland	1,165	2,004	2,219	1,955	-11.9
Tawas City (C)	Iosco	1,441	1,810	1,666	2,068	24.1
Taylor (C)	Wayne	n.d.	n.d.	70,020	77,886	11.2
Tecumseh (C)	Lenawee	4,020	7,045	7,120	7,987	12.2
Takonsha (V)	Calhoun	647	744	739	810	9.6
Thompsonville (V)	Benzie	313	243	312	340	9.0
Three Oaks (V)	Berrien	1,572	1,763	1,750	1,766	.9
Three Rivers (C)	St. Joseph	6,785	7,092	7,355	6,662	- 9.4
Traverse City (C)	Grd. Traverse	6,974	18,432	18,048	18,593	3.0
Trenton (C)	Wayne	6,222	18,439	24,127	27,771	15.1
Troy (C)	Oakland	n.d.	19,402	39,419	57,710	46.4
Turner (V)	Arenac	193	206	182	211	15.9
Tustin (V)	Osceola	229	248	230	465	102.2
Twining (V)	Arenac	196	199	198	217	9.6
Ubly (V)	Huron	743	819	899	988	9.9
Union City (V)	Branch/Calhoun	1,564	1,669	1,740	1,646	- 5.4
Unionville (v)	Tuscola	531	629	647	646	- .2
Utica (C)	Macomb	1,196	1,454	3,504	4,123	17.7
Vandalia (V)	Cass	360	357	427	475	11.2
Vanderbilt (V)	Otsego	410	509	522	521	- .2
Vassar (C)	Tuscola	2,530	2,680	2,802	3,273	16.8

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1976	1970-1976
Vermontville (V)	Eaton	707	768	857	1,036	20.9
Vernon (V)	Shiawassee	678	754	818	1,070	30.8
Verona Park (U)	Calhoun	1,342	1,884	2,107	n.a.	n.a.
Vicksburg (V)	Kalamazoo	2,171	2,224	2,139	2,508	17.3
Wakefield (C)	Gogebic	3,344	3,231	2,757	2,753	- .1
Waldron (V)	Hillsdale	427	454	564	592	5.0
Walker (C)	Kent	n.d.	n.d.	11,492	13,439	16.9
Walkerville (V)	Oceana	233	261	319	300	- 6.0
Walled Lake (C)	Oakland	n.d.	3,550	3,759	4,270	13.6
Warren (C)	Macomb	727	89,246	179,260	170,225	- 5.0
Washington (U)	Macomb	n.d.	n.d.	1,563	n.a.	n.a.
Watervliet (C)	Berrien	1,327	1,818	2,059	2,058	0.0
Wayland (C)	Allegan	1,591	2,019	2,054	2,161	5.2
Wayne (C)	Wayne	9,409	16,034	21,054	20,245	- 3.8
Webberville (V)	Ingham	600	664	1,251	1,596	27.6
Wells (U)	Delta	n.d.	n.d.	1,085	n.a.	n.a.
West Branch (C)	Ogemaw	2,098	2,025	1,912	2,539	32.8
Westland (C)	Wayne	n.d.	n.d.	86,749	89,270	2.9
Westphalia (V)	Clinton	459	560	806	859	6.6
Westwood (U)	Kalamazoo	n.d.	n.d.	9,143	n.a.	n.a.
White Cloud (C)	Newaygo	977	1,001	1,044	1,158	10.9
Whitehall (C)	Muskegon	1,819	2,590	3,017	3,317	9.9
White Lk-Seven Harbrs	Oakland	1,385	2,748	4,504	n.a.	n.a.
White Pigeon (V)	St. Joseph	1,113	1,399	1,455	1,592	9.4
White Pine (U)	Ontonagon	n.d.	n.d.	1,218	n.a.	n.a.

TABLE I-4. CERTIFIED SPECIAL CENSUSES IN MICHIGAN SINCE 1970: AS OF 31 AUGUST 1978

Locality	County	Date of census	1 April 1970 population[a]	Special census population
Clyde Twp.	Allegan	11/29/76	1,575	1,736
Dorr Twp.	Allegan	8/26/76	3,055	4,573
Laketown Twp.	Allegan	3/9/77	2,175	2,851
Alpena Twp.	Alpena	3/29/77	9,001	9,535
Green Twp.	Alpena	3/30/77	863	1,007
Long Rapids Twp.	Alpena	3/24/77	878	967
Maple Ridge Twp.	Alpena	3/30/77	1,091	1,519
Ossineke Twp.	Alpena	3/30/77	1,353	1,578
Sanborn Twp	Alpena	3/29/77	1,624	2,166
Wellington Twp.	Alpena	3/30/77	269	304
Wilson Twp.	Alpena	3/30/77	1,824	2,060
Forest Home Twp.	Antrim	9/2/76	688	1,160
Milton Twp.	Antrim	9/10/76	853	1,221
Star Twp.	Antrim	9/20/76	331	477
Frankenlust Twp.	Bay	6/21/76	2,032	2,167
Hampton Twp.	Bay	5/4/76	6,868	8,964
Monitor Twp.	Bay	5/14/76	8,743	10,034
Baroda Twp.	Berrien	7/26/76	1,663	2,059
Bridgeman City	Berrien	3/29/77	1,621	2,189
Clarence Twp.	Calhoun	3/16/77	1,392	1,758
Newton Twp.	Calhoun	12/13/76	1,327	1,798
Springfield City	Calhoun	1/10/77	3,994	5,576
Mason Twp.	Cass	2/15/76	1,519	1,864
Charlevoix Twp.	Charlevoix	7/23/76	720	979
Bingham Twp.	Clinton	6/21/76	1,561	2,176
Beaver Creek Twp.	Crawford	10/27/76	523	708
Frederic Twp.	Crawford	12/13/76	697	1,037
Grayling Twp.	Crawford	10/1/76	2,252	4,310
Lovells Twp.	Crawford	12/9/76	117	346
Bay DeNoc Twp.	Delta	9/9/76	312	374
Breitung Twp.	Dickinson	5/20/76	3,392	4,149
Delta Twp.	Eaton	2/25/76	17,396	20,922
Eaton Twp.	Eaton	2/23/76	2,104	2,746
Argentine Twp.	Genesee	8/11/76	2,901	3,923
Davison City	Genesee	10/28/76	5,259	6,193
Flushing City	Genesee	4/1/76	7,190	8,313
Flushing Twp.	Genesee	8/1/76	6,957	8,602
Secord Twp.	Gladwin	9/13/76	398	696
Acme Twp.	Grand Traverse	2/22/77	1,662	2,499
Blair Twp.	Grand Traverse	3/1/77	1,677	4,030

TABLE I-4. CERTIFIED SPECIAL CENSUSES IN MICHIGAN SINCE 1970: AS OF 31 AUGUST 1978 (cont.)

Locality	County	Date of census	1 April 1970 population[a]	Special census population
East Bay Twp.	Grand Traverse	9/21/76	3,356	4,844
Fife Lake Twp	Grand Traverse	3/1/77	364	687
Garfield Twp.	Grand Traverse	7/22/76	4,917	7,420
Green Lake Twp.	Grand Traverse	6/21/76	1,206	1,986
Union Twp.	Grand Traverse	1/20/77	57	144
Whitewater Twp.	Grand Traverse	9/21/76	796	1,228
Somerset Twp.	Hillsdale	7/20/76	1,886	2,549
Delhi Twp.	Ingham	5/29/76	13,795	15,375
Meridan Twp.	Ingham	2/4/76	23,817	27,846
Vevay Twp.	Ingham	6/7/76	1,916	2,504
Chippewa Twp.	Isabella	11/9/76	2,552	3,330
Waterloo Twp.	Jackson	4/14/77	1,788	2,284
Comstock Twp.	Kalamazoo	3/28/77	10,465	10,615
Oshtemo Twp.	Kalamazoo	3/17/76	6,237	9,376
Portage City	Kalamazoo	2/2/77	33,590	36,533
Texas Twp.	Kalamazoo	3/14/77	3,187	4,524
Clearwater Twp.	Kalkaska	9/9/76	884	1,516
Kalkaska Twp.	Kalkaska	2/25/76	489	1,406
Kalkaska Village	Kalkaska	2/25/76	1,475	1,709
Rapid River Twp.	Kalkaska	7/6/76	249	519
Ada Twp.	Kent	7/13/76	4,479	5,607
Algoma Twp.	Kent	3/2/77	3,088	3,741
Byron Twp.	Kent	4/6/76	7,493	9,062
Cascade Twp.	Kent	11/10/76	5,243	8,445
Courtland Twp.	Kent	4/22/76	2,196	2,735
Kentwood City	Kent	3/4/76	20,310	25,731
Lowell Twp.	Kent	10/12/76	2,160	3,363
Plainfield Twp.	Kent	3/7/77	16,935	19,615
Rockford City	Kent	3/8/77	2,428	3,367
Walker City	Kent	3/17/76	11,492	13,349
Deerfield Twp.	Lapeer	3/11/77	2,713	3,913
Lapeer Twp.	Lapeer	3/15/77	2,574	3,820
Marathon Twp.	Lapeer	3/3/77	2,029	2,607
Mayfield Twp.	Lapeer	3/29/77	3,645	6,127
Oregon Twp.	Lapeer	3/1/77	2,510	4,637
Bingham Twp.	Leelanau	3/28/77	916	1,502
Riga Twp.	Lenawee	8/28/78	1,675	1,667
Brighton City	Livingston	10/21/76	2,457	3,437
Brighton Twp.	Livingston	3/4/76	5,882	8,396
Genoa Twp.	Livingston	1/19/77	4,800	7,229
Hamburg Twp.	Livingston	2/11/77	5,481	7,541

TABLE I-4. CERTIFIED SPECIAL CENSUSES IN MICHIGAN SINCE 1970: AS OF 31 AUGUST 1978 (cont.)

Locality	County	Date of census	1 April 1970 population[a]	Special census population
Hartland Twp.	Livingston	4/19/76	2,630	4,536
Howell Twp.	Livingston	7/12/76	2,426	3,426
Oceola Twp.	Livingston	1/13/76	2,496	3,520
Tyrone Twp.	Livingston	3/15/77	3,437	5,033
Unadilla Twp.	Livingston	10/19/76	1,793	2,405
Bruce Twp.	Macomb	7/8/76	2,213	3,341
Chesterfield Twp.	Macomb	8/19/76	9,378	14,270
Clinton Twp.	Macomb	7/27/76	48,865	63,115
Fraser City	Macomb	2/11/77	11,868	13,986
Macomb Twp.	Macomb	8/19/76	6,140	7,949
New Baltimore City	Macomb	2/19/77	4,132	5,229
Sterling Heights City	Macomb	9/21/76	61,365	92,904
Chocolay Twp.	Marquette	2/2/77	3,299	4,780
Ingersoll Twp.	Midland	2/19/77	2,285	2,757
Jerome Twp.	Midland	3/1/77	2,336	2,938
Mt. Haley Twp.	Midland	2/16/77	1,262	1,556
Ida Twp.	Monroe	10/6/76	3,377	4,086
Monroe Twp.	Monroe	8/25/75	9,351	9,606
Eureka Twp.	Montcalm	8/21/74	1,938	2,210
Richland Twp.	Montcalm	3/7/77	1,832	2,334
Albert Twp.	Montmorency	1/18/77	1,013	1,562
Fruitland Twp.	Muskegon	3/9/77	3,200	3,894
Muskegon Twp.	Muskegon	10/6/75	13,754	14,079
Avon Twp.	Oakland	2/19/76	24,513	31,299
Commerce Twp.	Oakland	3/18/76	14,556	17,108
Farmington Hills City	Oakland	8/27/74	48,694	50,822
Highland Twp.	Oakland	6/3/76	8,372	13,471
Novi City	Oakland	8/19/75	9,668	14,385
Oakland Twp.	Oakland	4/5/76	4,793	6,365
Oxford Village	Oakland	4/1/77	2,536	2,709
Pontiac Twp.	Oakland	5/2/76	12,646	14,668
South Lyon City	Oakland	8/10/76	2,675	4,378
Springfield Twp.	Oakland	4/22/76	4,388	6,506
Troy City	Oakland	10/4/75	39,419	50,508
Walled Lake City	Oakland	3/1/77	3,759	4,331
West Bloomfield Twp.	Oakland	11/11/76	28,563	36,316
White Lake Twp.	Oakland	2/5/76	14,311	19,544
Wixom City	Oakland	5/12/76	2,010	4,453
Cumming Twp.	Ogemaw	7/22/76	422	592
Evart Twp.	Osceola	9/1/76	582	876

TABLE I-4. CERTIFIED SPECIAL CENSUSES IN MICHIGAN SINCE 1970: AS OF 31 AUGUST 1978 (cont.)

Locality	County	Date of census	1 April 1970 population[a]	Special census population
LeRoy Village	Osceola	3/24/77	248	282
Total County	Oscoda	1/5/77	4,726	6,305
Big Creek Twp.	Oscoda	1/5/77	1,663	2,167
Clinton Twp.	Oscoda	1/5/77	398	462
Comins Twp.	Oscoda	1/5/77	1,198	1,504
Elmer Twp.	Oscoda	1/5/77	412	627
Greenwood Twp.	Oscoda	1/5/77	315	610
Menter Twp.	Oscoda	1/5/77	740	935
Bagley Twp.	Otsego	7/15/75	2,294	3,546
Hayes Twp.	Otsego	12/8/76	416	936
Allendale Twp.	Ottawa	4/15/76	3,554	5,204
Ferrysburg City	Ottawa	7/23/77	2,196	2,284
Georgetown Twp.	Ottawa	1/28/76	17,615	22,444
Holland Twp.	Ottawa	6/2/76	10,849	12,166
Hudsonville City	Ottawa	8/9/76	3,523	4,161
Park Twp.	Ottawa	4/6/76	6,639	8,642
Richfield Twp.	Roscommon	7/6/76	1,520	2,626
Roscommon Twp.	Roscommon	5/16/78	1,900	2,655
Buena Vista Twp.	Saginaw	1/2/77	13,687	12,642
Saginaw Twp.	Saginaw	5/29/75	27,234	32,625
Thomas Twp.	Saginaw	3/25/77	8,585	10,218
Berlin Twp.	St. Clair	7/28/76	1,595	2,012
Casco Twp.	St. Clair	1/4/77	2,065	3,687
Clyde Twp.	St. Clair	6/28/76	2,980	4,327
Kenockee Twp.	St. Clair	10/27/76	1,250	1,629
Kimball Twp.	St. Clair	4/6/77	6,152	7,127
Riley Twp.	St. Clair	3/1/77	1,536	1,946
Fabius Twp.	St. Joseph	3/29/77	2,080	2,762
Buel Twp.	Sanilac	9/1/76	691	894
Fremont Twp.	Sanilac	7/29/76	564	846
Caro Village	Tuscola	2/15/77	4,028	4,122
Cass City Village	Tuscola	2/22/77	1,974	2,436
Pittsfield Twp.	Washtenaw	2/3/76	8,073	10,717
Saline City	Washtenaw	7/30/74	4,811	6,050
Superior Twp.	Washtenaw	3/22/76	5,562	6,447
Webster Twp.	Washtenaw	3/31/77	1,981	2,505
Belleville City	Wayne	2/2/77	2,406	3,200
Brownstone Twp.	Wayne	5/24/75	7,088	14,893
Canton Twp.	Wayne	7/8/75	11,026	27,247
Northville Twp.	Wayne	6/3/76	9,522	12,475

TABLE I-4. CERTIFIED SPECIAL CENSUSES IN MICHIGAN SINCE 1970: AS OF 31 AUGUST 1978 (cont.)

Locality	County	Date of census	1 April 1970 population[a]	Special census population
Plymouth Twp.	Wayne	9/14/76	17,497	20,450
Riverview City	Wayne	3/19/77	11,342	14,305
Taylor City	Wayne	3/8/76	70,020	77,490
Van Buren Twp.	Wayne	11/22/75	13,152	17,190
Westland City	Wayne	3/29/77	86,749	86,824
Woodhaven City	Wayne	12/20/74	3,566	8,356
Cherry Grove Twp.	Wexford	9/8/76	835	1,418
Slagle Twp.	Wexford	9/2/76	280	372

SOURCE: Michigan Department of Management and Budget, special release; and Bureau of the Census, Current Population Reports (Washington, D.C.: 1977), Series P-25, no. 670, Table 1; Series P-28, no. 1558, (Washington, D.C.: 1978), Table 1; and Series P-28, no. 1561 (Washington, D.C.: 1978), Table 1.

a. Reflects annexations and corrections to 1970 Census count.

TABLE I-5. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970 (cont.)

County	1920	1930	1940	1950	1960	1970
Gladwin	8,827	7,424	9,385	9,451	10,769	13,471
Gogebic	33,225	31,577	31,797	27,053	24,370	20,676
Grand Traverse	19,518	20,011	23,390	28,598	33,490	39,175
Gratiot	33,914	30,252	32,205	33,429	37,012	39,246
Hillsdale	28,161	27,417	29,092	31,916	34,742	37,171
Houghton	71,930	52,851	47,631	39,771	35,654	34,652
Huron	32,786	31,132	32,584	33,149	34,006	34,083
Ingham	81,554	116,587	130,616	172,941	211,296	261,039
Ionia	33,087	35,093	35,710	38,158	43,132	45,848
Iosco	8,199	7,517	8,560	10,906	16,505	24,905
Iron	22,107	20,805	20,243	17,692	17,184	13,813
Isabella	22,610	21,126	25,982	28,964	35,348	44,594
Jackson	72,539	92,304	93,108	197,925	131,994	143,274
Kalamazoo	71,225	91,368	100,085	126,707	169,712	201,550
Kalkaska	5,577	3,799	5,159	4,597	4,382	5,272
Kent	183,041	240,511	246,338	288,292	363,187	411,044
Keweenaw	6,322	5,076	4,004	2,918	2,417	2,264
Lake	4,437	4,066	4,798	5,257	5,338	5,661
Lapeer	25,782	28,348	32,116	35,794	41,926	52,361[a]
Leelanau	9,061	8,206	8,436	8,647	9,321	10,872
Lenawee	47,767	49,849	53,110	64,629	77,789	81,951[a]
Livingston	17,522	19,274	20,863	26,725	38,233	58,967
Luce	6,149	6,528	7,423	8,147	7,827	6,789
Mackinac	8,026	8,783	9,438	9,287	10,853	9,660
Macomb	38,103	77,146	107,638	184,961	405,804	625,309

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1976; AND PERCENTAGE CHANGE: 1970-1976 (cont.)

Place	County	Population				Percentage change 1970-1976
		1950	1960	1970	1976	
Whitmore Lake (U)	Livingston	n.d.	n.d.	2,763	n.a.	n.a.
Whittemore (C)	Iosco	452	460	460	580	26.1
Williamston (C)	Ingham	2,051	2,214	2,600	3,193	22.8
Wixom (C)	Oakland	n.d.	1,531	2,010	4,508	124.3
Wolf Lake (U)	Muskegon	1,591	2,525	2,258	n.a.	n.a.
Wolverine (V)	Cheboygan	318	292	303	341	12.5
Wolverine Lake (V)	Oakland	n.d.	2,404	4,301	5,392	25.4
Wood Creek Farms	Oakland	n.d.	684	1,090	n.a.	n.a.
Woodhaven (C)	Wayne	n.d.	n.a.	3,566[a]	11,247	215.4
Woodland (V)	Barry	410	374	473	546	15.4
Woodland Beach (U)	Monroe	n.d.	1,944	2,249	n.a.	n.a.
Wurtsmith (U)	Iosco	n.d.	n.a.	6,932	n.a.	n.a.
Wyandotte (C)	Wayne	36,846	43,519	41,061	36,576	-10.9
Wyoming (C)	Kent	n.d.	45,829	56,560	57,916	2.4
Yale (C)	St. Clair	1,641	1,621	1,505	1,700	13.0
Ypsilanti (C)	Washtenaw	18,302	20,957	29,538	26,961	- 8.7
Zeeland (C)	Ottawa	3,075	3,702	4,734	5,431	14.7
Zilwaukee (C)	Saginaw	n.d.	n.d.	2,072	2,091	.9

SOURCES: Bureau of the Census, Current Population Reports, Series P-25, No.761 (Washington, D.C.: 1979), Table 1 (1976 and 1970 data), U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Final Report PC(1)-A24, Table 6 (1960 data), and U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Final Report PC(1)-24A, Table 8 (1950 data).

a. Corrected for errors found after tabulations were completed.

C: City.

U: Unincorporated.

V: Village.

n.d.: not defined.

n.a.: not available.

TABLE I-5. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970

County	1920	1930	1940	1950	1960	1970
Alcona	5,912	4,989	5,463	5,856	6,352	7,113
Alger	9,983	9,327	10,167	10,007	9,250	8,568
Allegan	37,540	38,974	41,839	47,493	57,729	66,575
Alpena	17,869	18,574	20,766	22,189	28,556	30,708
Antrim	11,543	9,979	10,964	10,721	10,373	12,612
Arenac	9,460	8,007	9,233	9,644	9,860	11,149
Baraga	7,662	9,168	9,356	8,037	7,151	7,789
Barry	21,383	20,928	22,613	26,183	31,738	38,166
Bay	69,548	69,474	74,981	88,461	107,042	117,339
Benzie	6,947	6,587	7,800	8,306	7,834	8,593
Berrien	62,653	80,066	89,117	115,702	149,865	163,875
Branch	23,997	23,950	25,845	30,202	34,903	37,906
Calhoun	72,918	87,043	94,206	120,813	138,858	141,963
Cass	20,395	20,888	21,910	28,185	36,932	43,312
Charlevoix	15,788	11,981	13,031	13,475	13,421	16,541
Cheboygan	13,991	11,502	13,644	13,731	14,550	16,573
Chippewa	24,818	25,047	27,807	29,206	32,655	32,412
Clare	8,250	7,032	9,163	10,253	11,647	16,695
Clinton	23,110	24,174	26,671	31,195	37,969	48,492
Crawford	4,049	3,097	3,765	4,151	4,971	6,482
Delta	30,909	32,280	34,037	32,913	34,298	38,924
Dickinson	19,941	29,941	28,731	24,844	23,917	23,753
Eaton	29,377	31,728	34,124	40,023	49,684	68,892
Emmet	15,639	15,109	15,791	16,534	15,904	18,331
Genesee	125,668	211,641	227,944	270,963	374,313	445,589

TABLE I-5. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970 (cont.)

County	1920	1930	1940	1950	1960	1970
Manistee	20,899	17,409	18,450	18,524	19,042	20,094
Marquette	45,786	44,076	47,144	47,654	56,154	64,686
Mason	19,831	18,756	19,378	20,474	21,929	22,612
Mecosta	17,765	15,738	16,902	18,968	21,051	27,992
Menominee	23,778	23,652	24,883	25,299	24,685	24,587
Midland	17,237	19,150	27,094	35,662	51,450	63,769
Missaukee	9,004	6,992	8,034	7,458	6,784	7,126
Monroe	37,115	52,485	58,620	75,666	101,120	118,479
Montcalm	30,441	27,471	28,581	31,013	35,795	38,660
Montmorency	4,089	2,814	3,840	4,125	4,424	5,247
Muskegon	62,362	84,630	94,501	121,545	149,943	157,426
Newaygo	17,378	17,029	19,286	21,567	24,160	27,992
Oakland	90,050	211,251	254,068	396,001	690,259	907,871
Oceana	15,601	13,805	14,812	16,105	16,547	17,984
Ogemaw	7,786	6,595	8,720	9,345	9,680	11,903
Ontonagon	12,428	11,114	11,359	10,282	10,584	10,548
Osceola	15,221	12,806	13,309	13,797	13,595	14,838
Oscoda	1,783	1,728	2,543	3,134	3,447	4,726
Otsego	6,043	5,554	5,827	6,435	7,545	10,422
Ottawa	47,660	54,858	59,660	73,751	98,719	128,181
Presque Isle	12,131	11,330	12,250	11,996	13,117	12,836
Roscommon	2,032	2,055	3,668	5,916	7,200	9,892
Saginaw	100,286	120,717	130,468	153,515	190,752	219,743
St. Clair	58,009	67,563	76,222	91,599	107,201	120,175
St. Joseph	26,818	30,618	31,749	35,071	42,332	47,392

TABLE I-5. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970 (cont.)

County	1920	1930	1940	1950	1960	1970
Sanilac	31,237	27,751	30,114	30,837	32,314	35,181[a]
Schoolcraft	9,997	8,451	9,524	9,148	8,953	8,226
Shiawassee	35,924	39,517	41,207	45,967	53,446	63,075
Tuscola	33,320	32,934	35,694	38,258	43,305	48,603
Van Buren	30,715	32,637	35,111	39,184	48,395	56,173
Washtenaw	49,520	65,530	80,810	134,606	172,440	234,103
Wayne	1,177,645	1,888,946	2,015,623	2,435,235	2,666,297	2,669,604[a]
Wexford	18,297	16,827	17,976	18,628	18,466	19,717
TOTAL	3,668,412	4,842,325	5,256,106	6,371,766	7,823,194	8,879,862[a]

SOURCES: Bureau of the Census, U.S. Census of Population: 1940, Number of Inhabitants, Michigan (Washington 1941), Table 5, U.S. Census of Population: 1950, Number of Inhabitants, (Washington, D.C.: 1951), Table 5, U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Table 6, and U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Table 9.

a. Corrected for errors found after tabulations were completed.

TABLE I-6. POPULATION OF MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1 JULY 1971-1978

Area	Population (000) 1971	1972	1973	1974	1975	1976	1977	1978
Counties								
Alcona	7.6	8.1	8.3	8.5	8.6	8.8	9.1	9.3
Alger	8.5	8.3	8.6	8.8	9.1	9.4	9.8	10.0
Allegan	68.1	69.5	69.9	70.4	71.3	72.4	73.5	74.0
Alpena	31.7	32.0	32.3	32.4	33.1	33.1	33.3	33.4
Antrim	13.4	13.6	14.2	15.0	15.5	15.7	16.0	16.3
Arenac	11.7	12.0	12.3	12.7	13.1	13.2	13.6	13.5
Baraga	7.7	7.7	7.9	7.9	8.1	8.2	8.4	8.6
Barry	38.9	40.0	39.8	40.5	41.5	41.9	42.3	42.9
Bay	118.3	119.1	119.7	120.3	120.0	119.9	120.8	121.6
Benzie	8.6	8.8	9.4	9.7	10.0	10.3	10.6	10.6
Berrien	164.3	167.0	168.8	169.5	170.1	170.8	170.1	167.3
Branch	38.6	39.3	38.8	38.9	38.0	38.2	38.1	38.9
Calhoun	140.1	141.4	142.3	141.7	141.0	140.2	140.3	140.7
Cass	43.2	43.3	44.6	45.1	45.7	45.6	45.6	45.4
Charlevoix	17.1	17.2	18.0	18.1	18.6	19.1	19.6	19.4
Cheboygan	17.2	18.0	18.6	19.2	19.3	19.9	20.1	19.8
Chippewa	33.2	34.4	34.8	35.9	36.0	36.7	36.2	30.5
Clare	17.5	18.4	19.4	20.4	21.3	22.3	22.9	23.8
Clinton	48.6	48.5	50.3	51.5	52.5	52.7	53.9	55.0
Crawford	6.8	7.0	7.6	8.0	8.3	8.8	9.1	9.1
Delta	36.8	37.4	37.7	38.3	39.1	39.7	40.0	40.3
Dickinson	23.9	24.3	24.3	24.5	24.9	25.1	25.4	26.1
Eaton	70.3	71.5	73.9	74.9	77.6	77.3	79.3	82.1
Emmet	10.2	19.6	20.1	20.8	21.3	21.4	21.5	21.5
Genesee	448.4	451.1	452.8	452.0	448.8	446.7	448.6	451.0

TABLE I-6. POPULATION OF MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1 JULY 1971-1978 (cont.)

Area	Population (000) 1971	1972	1973	1974	1975	1976	1977	1978
				Counties (cont.)				
Gladwin	14.1	14.7	15.4	16.3	16.8	17.2	17.7	18.3
Gogebic	20.5	20.6	20.7	20.8	20.7	20.4	20.2	19.6
Grand Traverse	40.6	42.0	43.3	45.1	45.0	46.1	47.4	48.4
Gratiot	39.8	39.9	40.2	40.0	39.9	39.5	39.7	39.3
Hillsdale	38.2	38.9	39.1	39.9	40.2	40.4	40.6	41.2
Houghton	35.7	36.3	36.2	36.5	37.0	37.3	37.4	37.3
Huron	35.1	35.3	35.5	35.4	35.8	35.9	35.9	35.8
Ingham	263.1	266.4	268.6	270.1	268.4	270.1	269.2	271.0
Ionia	46.8	47.7	47.1	47.3	47.5	48.4	49.1	49.7
Iosco	26.5	27.6	27.9	28.4	28.5	29.1	30.0	30.5
Iron	13.7	13.9	13.8	13.9	14.2	14.5	14.6	14.7
Isabella	46.4	48.2	48.1	50.1	49.4	50.6	51.1	52.1
Jackson	143.2	144.1	144.5	146.2	146.9	147.2	148.7	150.2
Kalamazoo	201.1	202.6	200.3	201.6	201.5	203.2	205.0	208.0
Kalkaska	6.2	7.0	8.0	7.4	8.5	11.3	11.0	11.4
Kent	412.1	415.5	420.1	423.3	424.3	427.1	431.4	435.8
Keweenaw	2.5	2.3	2.2	2.1	2.2	2.3	2.4	2.2
Lake	6.2	6.4	6.5	6.6	6.8	6.9	7.1	7.0
Lapeer	54.2	55.3	57.4	60.2	61.7	63.0	64.6	67.1
Leelanau	11.3	11.7	12.0	12.2	12.4	12.7	13.0	13.4
Lenawee	82.5	83.4	84.9	86.0	86.4	86.3	86.3	87.3
Livingston	61.6	64.4	69.7	75.0	77.7	81.2	86.4	92.3
Luce	6.8	6.8	6.8	7.1	7.1	7.2	7.3	7.3
Mackinac	10.1	10.3	10.3	10.5	10.6	10.6	10.8	11.2
Macomb	636.0	639.9	655.2	663.9	667.1	672.7	685.1	693.4

TABLE I-6. POPULATION OF MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1 JULY 1971-1978 (cont.)

Area	Population (000)							
	1971	1972	1973	1974	1975	1976	1977	1978
Manistee	21.0	21.2	21.3	21.1	21.6	21.8	21.9	22.5
Marquette	66.8	68.3	68.2	70.3	69.4	71.3	73.1	73.8
Mason	23.8	24.5	24.8	24.4	24.6	24.8	25.2	24.7
Mecosta	29.0	30.7	32.4	33.4	33.9	34.3	34.8	34.8
Menominee	24.9	25.0	25.0	25.0	25.4	25.5	26.2	26.5
Midland	64.8	65.0	65.9	66.4	67.6	68.0	69.3	69.7
Missaukee	7.9	7.7	8.0	8.4	8.8	9.1	9.4	9.7
Monroe	121.5	123.6	124.6	125.0	126.3	127.0	129.8	131.8
Montcalm	40.5	41.6	42.1	42.8	43.9	44.4	45.1	45.4
Montmorency	5.4	5.7	6.3	6.8	6.9	7.2	7.3	7.7
Muskegon	158.5	158.9	158.0	157.3	157.4	158.6	158.8	158.8
Newaygo	28.3	28.9	29.8	30.4	31.2	31.6	32.3	33.4
Oakland	916.9	924.5	942.8	957.7	965.2	971.0	988.7	1,009.4
Oceana	18.6	19.3	19.5	20.0	20.7	20.8	21.0	21.0
Ogemaw	12.3	12.7	13.5	14.3	14.9	15.2	15.3	16.8
Ontonagon	10.8	10.8	11.1	10.9	11.3	11.4	11.0	10.7
Osceola	15.8	16.5	16.6	16.8	17.2	17.8	18.2	18.2
Oscoda	4.9	5.2	5.6	5.9	6.1	6.2	6.4	6.7
Otsego	10.9	11.6	12.4	13.2	13.4	13.9	14.3	14.3
Ottawa	129.4	131.6	136.9	138.8	141.0	142.9	146.2	149.4
Presque Isle	13.1	13.2	13.8	13.8	13.9	14.0	14.1	14.1
Roscommon	10.9	11.5	12.9	13.6	14.5	15.1	15.8	16.2
Saginaw	223.1	224.7	225.7	226.5	226.3	226.6	227.4	227.7
St. Clair	124.6	126.6	127.5	129.1	129.8	130.5	132.0	133.5
St. Joseph	47.8	49.1	50.0	50.7	50.8	51.2	51.4	51.8

TABLE I-6. POPULATION OF MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1 JULY 1971-1978 (cont.)

Area	Population (000) 1971	1972	1973	1974	1975	1976	1977	1978
Counties (cont.)								
Sanilac	36.1	36.9	37.9	38.5	39.0	39.4	39.4	40.2
Schoolcraft	8.4	8.4	8.5	8.4	8.6	8.9	9.0	9.3
Shiawassee	65.1	65.8	67.1	68.4	69.2	69.1	69.6	70.3
Tuscola	49.7	50.7	51.7	52.8	53.4	54.0	54.6	55.1
Van Buren	57.8	59.7	60.1	60.6	61.7	61.8	62.3	62.3
Washtenaw	235.0	240.0	242.2	252.9	246.6	249.4	251.2	254.5
Wayne	2,669.1	2,660.4	2,603.3	2,560.0	2,518.8	2,469.1	2,425.1	2,390.6
Wexford	20.1	20.7	21.3	21.5	22.0	22.1	22.4	22.8
Michigan	8,966.1	9,040.1	9,075.4	9,117.0	9,111.2	9,112.7	9,148.0	9,189.0
Standard Metropolitan Statistical Areas								
Ann Arbor	235.0	240.0	242.2	252.9	246.6	249.4	251.2	254.5
Battle Creek	179.0	181.4	182.2	182.3	182.5	182.1	182.6	183.6
Bay City	118.3	119.1	119.7	120.3	120.0	119.9	120.8	121.6
Detroit	4,462.4	4,471.0	4,455.9	4,445.9	4,420.3	4,387.5	4,381.9	4,386.4
Flint	513.5	516.9	519.9	520.5	518.0	515.7	518.2	521.3
Grand Rapids	541.4	547.1	556.9	562.1	565.2	570.0	577.6	585.1
Jackson	143.2	144.1	144.5	146.2	146.9	147.2	148.7	150.2
Kalamazoo-Portage	258.9	262.3	260.3	262.2	263.2	265.0	267.3	270.3
Lansing-East Lansing	428.8	434.2	439.9	443.8	446.0	448.5	451.5	457.7
Muskegon-Norton Shores-Muskegon Heights	177.1	178.1	177.5	177.3	178.1	179.4	179.8	179.8
Saginaw	223.1	224.7	225.7	226.5	226.3	226.6	227.4	227.7

SOURCE: Bureau of Economic Analysis, Regional Economics Information System; and Michigan Department of Management and Budget, special release. Data for 1977 and 1978 to be published, under the Federal-State Cooperative System for Population Estimates, in the Bureau of the Census, Current Population Reports (Washington, D.C.: 1979), Series P-26.

TABLE I-7. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1978

County	1960 to 1970				1970 to 1 July 1978			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Alcona	761	1,026	782	517	2,100	800	900	2,200
Alger	-682	1,534	1,098	-1,118	1,500	1,100	900	1,200
Allegan	8,846	12,689	5,740	1,897	7,400	10,000	5,000	2,400
Alpena	2,152	6,675	2,693	-1,830	2,700	4,000	2,200	900
Antrim	2,239	2,054	1,505	1,690	3,700	1,800	1,400	3,300
Arenac	1,289	1,892	1,269	666	2,400	1,700	1,200	1,800
Baraga	638	1,494	990	134	800	1,100	800	600
Barry	6,428	6,661	3,272	3,039	4,700	5,200	3,000	2,500
Bay	10,297	24,815	9,767	-4,751	4,200	15,900	8,100	-3,600
Benzie	759	1,534	1,053	278	2,000	1,100	1,000	1,900
Berrien	14,010	35,887	15,181	-6,696	3,300	24,500	12,700	-8,400
Branch	3,003	6,350	3,705	358	1,000	4,900	3,100	- 800
Calhoun	3,105	29,382	13,098	-13,179	-1,200	18,800	10,900	-9,100
Cass	6,380	6,935	3,975	3,420	2,000	5,900	3,300	- 500
Charlevoix	3,120	3,073	1,809	1,856	2,800	2,300	1,600	2,100
Cheboygan	2,023	3,129	1,686	580	3,200	2,500	1,600	2,400
Chippewa	-243	9,331	3,037	-6,537	-1,900	5,700	2,500	-5,100
Clare	5,048	2,667	1,692	4,073	7,100	2,300	1,900	6,700
Clinton	10,523	9,719	3,356	4,160	6,500	6,600	2,700	2,500
Crawford	1,511	1,177	636	970	2,600	1,000	700	2,300
Delta	1,626	6,683	3,778	-1,279	4,400	4,900	3,400	2,800
Dickinson	-164	4,024	2,894	-1,294	2,300	2,700	2,600	2,300
Eaton	19,208	11,370	4,691	12,529	13,200	9,200	4,200	8,200
Emmet	2,427	3,419	2,001	1,009	3,100	2,600	1,700	2,300
Genesee	70,028	98,739	30,380	1,669	5,400	64,600	26,900	-32,300

TABLE I-7. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1978 (cont.)

County	1960 to 1970				1970 to 1 July 1978			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Gladwin	2,702	2,171	1,298	1,829	4,900	1,900	1,400	4,400
Gogebic	-3,694	3,262	3,274	-3,682	-1,100	2,100	2,600	- 600
Grand Traverse	5,685	6,790	3,398	2,293	9,300	5,900	3,200	6,500
Gratiot	2,234	8,882	3,844	-2,804	100	5,600	2,900	-2,600
Hillsdale	2,429	7,022	3,715	-878	4,000	5,100	3,000	2,000
Houghton	-1,002	5,961	5,126	-1,837	2,600	4,200	3,900	2,400
Huron	77	7,491	3,876	-3,538	1,800	4,600	3,400	600
Ingham	49,743	53,584	16,852	13,011	9,900	36,600	13,700	-12,900
Ionia	2,716	9,273	4,403	-2,154	3,800	6,900	3,400	400
Iosco	8,400	6,253	1,876	4,023	5,600	4,500	2,100	3,200
Iron	-3,371	2,133	2,312	-3,192	900	1,200	1,800	1,500
Isabella	9,246	7,970	2,894	4,170	7,500	5,900	2,500	4,100
Jackson	11,280	27,765	12,804	-3,681	6,900	18,700	10,600	-1,200
Kalamazoo	31,838	37,175	14,291	8,954	6,500	24,900	11,500	-6,900
Kalkaska	890	898	696	688	6,100	1,100	700	5,700
Kent	47,857	84,359	33,901	-2,601	24,700	57,000	28,500	-3,700
Keweenaw	-153	355	408	-100	(c)	200	300	(c)
Lake	323	870	963	416	1,300	800	900	1,400
Lapeer	10,391	9,783	3,946	4,554	14,800	8,400	3,700	10,000
Leelanau	1,551	1,683	1,088	956	2,500	1,300	1,000	2,300
Lenawee	3,820	15,657	7,583	-4,254	5,300	12,100	6,000	- 700
Livingston	20,734	9,192	3,797	15,339	33,300	9,000	4,000	28,400
Luce	-1,038	1,177	703	-1,512	600	900	600	300
Mackinac	-1,193	2,258	1,056	-2,395	1,500	1,200	900	1,300
Macomb	219,505	125,043	28,368	122,830	67,200	79,800	32,200	19,700

TABLE I-7. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1978 (cont.)

County	1960 to 1970				1970 to 1 July 1978			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Manistee	1,052	3,822	2,511	- 259	2,100	2,400	2,200	1,900
Marquette	8,532	13,912	5,717	337	9,100	10,200	4,500	3,300
Mason	683	3,872	2,647	-542	2,100	2,800	2,200	1,500
Mecosta	6,941	4,710	2,304	4,535	6,800	3,900	2,000	4,900
Menominee	-98	4,240	2,850	-1,488	1,900	2,800	2,400	1,500
Midland	12,319	13,274	3,337	2,382	5,900	9,200	3,200	(c)
Missaukee	342	1,281	821	-118	2,500	1,100	700	2,100
Monroe	17,359	24,050	8,578	1,887	12,600	16,700	7,400	3,300
Montcalm	3,865	7,931	4,234	168	5,700	6,200	3,600	3,100
Montmorency	823	734	596	685	2,500	700	700	2,400
Muskegon	7,483	34,063	12,878	-13,702	1,400	21,200	11,300	-8,500
Newaygo	3,832	5,323	2,774	1,283	5,400	4,100	2,600	3,900
Oakland	217,612	161,590	50,009	106,031	101,600	112,300	53,200	42,500
Oceana	1,437	3,362	1,938	13	3,000	2,800	1,700	1,900
Ogemaw	2,223	1,772	1,318	1,769	4,900	1,700	1,500	4,700
Ontonagon	-36	2,003	1,271	-768	100	1,400	1,000	- 200
Osceola	1,243	2,768	1,678	153	3,400	2,400	1,500	2,500
Oscoda	1,279	735	510	1,054	1,900	600	600	2,000
Otsego	2,877	1,967	832	1,742	3,900	1,700	800	3,000
Ottawa	29,462	24,141	8,216	13,537	21,200	18,600	7,500	10,100
Presque Isle	-281	2,637	1,334	-1,584	1,200	1,700	1,100	700
Roscommon	2,692	1,181	1,143	2,654	6,300	1,300	1,500	6,500
Saginaw	28,991	48,032	17,070	-1,971	7,900	32,500	14,800	-9,800
St. Clair	12,974	22,928	11,399	1,445	14,200	17,200	10,200	7,300
St. Joseph	5,060	8,987	4,927	1,000	4,400	7,200	4,100	1,300

TABLE I-7. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1978 (cont.)

County	1960 to 1970				1970 to 1 July 1978			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Sanilac	2,575	6,769	4,033	- 161	5,000	5,000	3,400	3,500
Schoolcraft	-727	1,669	1,069	-1,327	1,000	1,100	900	900
Shiawassee	9,629	13,439	5,321	1,511	7,200	9,600	4,400	2,000
Tuscola	5,298	9,593	4,678	383	6,500	7,200	3,800	3,100
Van Buren	7,778	10,538	6,058	3,298	6,100	8,400	5,000	2,600
Washtenaw	61,663	42,116	11,850	31,397	20,400	31,000	10,800	100
Wayne	454	537,201	260,295	-276,452	-279,700	341,000	208,000	-412,800
Wexford	1,251	3,780	2,277	-252	3,100	3,000	1,900	2,000
TOTAL	1,051,889	1,753,686	729,033	27,236	307,000	1,190,000	630,000	-253,000

SOURCE: Bureau of the Census, Current Population Reports (Washington, D.C.: 1977), Series P-25, no. 461, and Michigan Department of Management and Budget, Information System Division, special release. Data for 1970 to 1 July 1978 to be published, under the Federal-State Cooperative Systems for Population Estimates, in Bureau of the Census, Current Population Reports (Washington, D.C.: 1978), Series P-26.

a. Not corrected for errors found after tabulations were completed. See Table I-5.

b. Corrected for underregistration.

c. Less than 50 persons or less than 0.05 percent.

TABLE I-8. POPULATION DENSITY OF MICHIGAN COUNTIES: CENSUS 1960 AND 1970

County	Persons per square mile 1960	1970	County	Persons per square mile 1960	1970
Alcona	9.4	10.5	Lake	9.3	9.9
Alger	10.1	9.5	Lapeer	63.8	79.5
Allegan	69.6	80.6	Leelanau	26.7	31.5
Alpena	50.3	54.4	Lenawee	103.2	108.4
Antrim	21.7	26.5	Livingston	67.0	103.1
Arenac	26.8	30.4	Luce	8.6	7.5
Baraga	7.9	8.6	Mackinac	10.7	9.5
Barry	57.8	68.9	Macomb	843.7	1,302.7
Bay	240.0	262.5	Manistee	34.1	36.3
Benzie	24.8	27.2	Marquette	30.5	35.4
Berrien	258.4	282.5	Mason	44.5	46.1
Branch	69.0	74.9	Mecosta	37.4	50.0
Calhoun	195.9	200.2	Menominee	23.9	23.7
Cass	75.7	88.2	Midland	98.9	122.6
Charlevoix	32.4	40.0	Missaukee	12.0	12.6
Cheboygan	20.1	23.0	Monroe	179.0	212.7
Chippewa	20.7	20.4	Montcalm	50.3	55.7
Clare	20.4	29.2	Montmorency	8.0	9.5
Clinton	66.5	84.8	Muskegon	297.5	314.2
Crawford	8.8	11.6	Newaygo	28.2	33.0
Delta	29.1	30.5	Oakland	787.1	1,047.1
Dickinson	31.6	31.4	Oceana	30.9	33.6
Eaton	87.6	120.7	Ogemaw	16.9	20.8
Emmet	34.5	39.8	Ontonagon	8.0	8.0
Genesee	582.1	692.1	Osceola	23.4	25.5
Gladwin	21.4	26.8	Oscoda	6.1	8.4
Gogebic	21.9	18.7	Otsego	14.2	20.0
Grand Traverse	72.2	84.8	Ottawa	175.0	227.7
Gratiot	65.4	69.3	Presque Isle	20.1	19.8
Hillsdale	57.8	62.0	Roscommon	13.8	19.0
Houghton	34.6	34.1	Saginaw	234.9	270.0
Huron	41.4	41.6	St. Clair	144.9	163.7
Ingham	378.0	467.0	St. Joseph	83.3	93.7
Ionia	75.0	79.7	Sanilac	33.6	36.3
Iosco	30.2	45.8	Schoolcraft	7.5	7.0
Iron	14.4	11.8	Shiawassee	99.0	116.8
Isabella	61.8	78.0	Tuscola	53.1	59.6
Jackson	187.2	205.3	Van Buren	79.7	93.2
Kalamazoo	299.3	358.6	Washtenaw	240.8	329.3
Kalkaska	7.8	9.3	Wayne	4,392.6	4,407.9
Kent	421.3	479.6	Wexford	32.8	35.3
Keweenaw	4.4	4.2			
			MICHIGAN	137.2	156.2

SOURCES: Bureau of the Census, U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Final Report PC(1)-24A, Table 6; and Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Final Report PC(1)-A24, Table 9.

TABLE I-9. POPULATION OF MICHIGAN, BY RACE AND SEX: CENSUS 1870-1970

Year and sex	White	Negro	Indian	Japanese	Chinese	Filipino	All other
MALE							
1870	609,046	6,192	2,505	1	1	0	0
1880	850,795	7,836	3,696	1	27	0	0
1890	1,080,717	7,986	2,926	35	117	0	0
1900	1,237,098	8,220	3,341	6	240	0	0
1910	1,441,281	9,007	3,968	38	239	n.a.	1[a]
1920	1,890,265	34,249	2,941	162	717	n.a.	102[a]
1930	2,424,568	88,936	3,835	138	902	731	199
1940	2,584,459	105,491	3,365	100	708	n.a.	604[a]
1950	2,983,372	222,011	3,805	811	1,222	n.a.	998[a]
1960	3,520,422	352,142	4,898	1,369	1,928	684	1,425
1970	3,844,506	479,144	8,338	2,108	3,474	1,730	9,348
FEMALE							
1870	558,236	5,657	2,421	0	0	0	0
1880	763,765	7,264	3,553	0	0	0	0
1890	992,167	7,237	2,699	3	3	0	0
1900	1,161,465	7,596	3,013	3	0	0	0
1910	1,343,966	8,108	3,551	11	2	n.a.	1[a]
1920	1,711,362	25,833	2,673	22	75	n.a.	11[a]
1930	2,238,939	80,517	3,245	38	179	56	42
1940	2,455,184	102,854	2,917	39	216	n.a.	169[a]
1950	2,934,453	220,285	3,195	706	497	n.a.	511[a]
1960	3,565,443	365,439	4,803	1,842	1,306	450	1,043
1970	3,988,968	511,922	8,516	3,113	2,933	1,927	9,056
TOTAL							
1870	1,167,282	11,849	4,926	1	1	0	0
1880	1,614,560	15,100	7,249	1	27	0	0
1890	2,072,884	15,223	5,625	38	120	0	0
1900	2,398,563	15,816	6,354	9	240	0	0
1910	2,785,247	17,115	7,519	49	241	n.a.	2[a]
1920	3,601,627	60,082	5,614	184	792	n.a.	113[a]
1930	4,663,507	169,453	7,080	176	1,081	787	241
1940	5,039,643	208,345	6,282	139	924	n.a.	773[a]
1950	5,917,825	442,296	7,000	1,517	1,619	n.a.	1,509[a]
1960	7,085,865	717,581	9,701	3,211	3,234	1,134	2,468
1970	7,833,474	991,066	16,854	5,221	6,407	3,657	18,404

SOURCES: Bureau of the Census, Sixteenth Census of the United States: 1940, Population, vol. 2, Characteristics of the Population, Part 3: Kansas-Michigan (Washington, D.C.: 1943), Table 4; and Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC(1)-B24, Table 17.

a. Includes Filipinos.

n.a.: not available.

TABLE I-10. RESIDENT POPULATION OF MICHIGAN, BY AGE GROUP, SEX, AND RACE: CENSUS 1970 AND SPRING 1976

(In thousands)

Age group	1970			1976		
	Male	Female	Total	Male	Female	Total
			White			
Less than 5 years	352	336	688	288	252	540
5-9 years	412	393	805	333	322	655
10-14 years	436	418	854	403	390	793
15-19 years	383	380	763	428	432	860
20-24 years	288	324	612	344	366	711
25-34 years	473	481	954	565	594	1,160
35-44 years	435	449	884	430	483	914
45-54 years	438	463	901	459	446	905
55-64 years	329	348	677	350	371	721
65 years and older	300	394	694	293	430	723
Total	3,844	3,989	7,833	3,898	4,090	7,989
			Black			
Less than 5 years	56	55	111	58	56	114
5-9 years	57	56	113	56	55	111
10-14 years	60	60	120	52	49	101
15-19 years	51	54	105	50	58	109
20-24 years	39	46	85	41	60	102
25-34 years	56	63	119	57	81	138
35-44 years	52	60	112	44	52	97
45-54 years	49	52	101	46	53	99
55-64 years	33	35	68	35	47	82
65 years and older	26	30	56	24	34	58
Total	479	512	991	467	550	1,017
			Total			
Less than 5 years	410	394	804	353	310	663
5-9 years	471	453	924	393	380	774
10-14 years	499	480	979	460	442	903
15-19 years	436	437	873	481	493	974
20-24 years	329	374	703	387	428	816
25-34 years	533	549	1,082	632	688	1,321
35-44 years	490	512	1,002	478	540	1,018
45-54 years	489	518	1,007	508	503	1,011
55-64 years	363	385	748	386	419	806
65 years and older	328	425	753	320	466	786
Total	4,349	4,526	8,875	4,402	4,674	9,076

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC1-B24, Table 19, and Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, no. 334 (Washington, D.C.: 1979), Table 1.

TABLE I-11. RESIDENT POPULATION OF MICHIGAN AND THE UNITED STATES, BY AGE GROUP: CENSUS 1940, 1950, 1960, AND 1970; AND 1 JULY 1975, 1976, 1977, AND 1978 ESTIMATE

(In thousands)

Year	Resident population	Under 5 years	5 to 17 years	18 to 44 years	45 to 64 years	65 years and over	14 years and over	18 years and over	21 years and over
				Michigan					
1940	5,256	431	1,168	2,263	1,063	331	4,037	3,657	3,374
1950	6,372	704	1,209	2,606	1,303	462	4,718	4,370	4,107
1960	7,823	969	1,990	2,721	1,505	638	5,349	4,864	4,580
1970	8,875	805	2,448	3,118	1,755	749	6,359	5,622	5,146
1975	9,108	706	2,287	3,509	1,789	818	6,881	6,116	5,560
1976	9,113	669	2,245	3,582	1,783	833	6,951	6,198	5,634
1977	9,148	654	2,199	3,668	1,778	850	7,036	6,296	5,728
1978	9,189	649	2,151	3,751	1,771	867	7,120	6,389	5,828
				United States					
1940[a]	131,669	10,542	29,745	56,279	26,084	9,019	101,103	91,382	83,997
1950	151,326	16,243	30,724	61,340	30,724	12,295	112,802	104,358	97,771
1960	179,323	20,321	43,881	62,503	36,057	16,560	126,276	115,121	108,124
1970	203,235	17,163	52,526	71,738	41,836	19,972	149,398	133,546	122,722
1975	213,051	15,879	50,372	80,842	43,537	22,420	163,732	146,008	134,385
1976	214,669	15,343	49,853	82,829	43,698	22,942	166,365	149,474	136,839
1977	216,383	15,241	49,010	84,840	43,786	23,507	168,914	152,133	139,361
1978	218,059	15,361	48,015	86,783	43,845	24,054	171,319	154,682	141,930

SOURCES: Bureau of the Census, Current Population Reports, Series P-25, No. 384 (Washington, D.C. 1968), No. 734 (1978), and No. 794 (1979); Bureau of the Census, U.S. Census of Population: 1960, vol. 1 Characteristics of the Population, Part 1, U.S. Summary (Washington, D.C.: 1964), Table 46 (1950 U.S. data) and General Population Characteristics, Michigan (Washington, D.C.; 1961), Final Report PC (1)-24B, Table 16 (1950 Michigan data); and similar census documents for earlier years.

a. Excludes Alaska and Hawaii.

TABLE I-12. MICHIGAN'S ELDERLY POPULATION, BY COUNTY: CENSUS 1970 AND 1 JULY 1976

County	Census 1970		1 July 1976		Percentage of total population 65 years and older	
	60 years and older	65 years and older	60 years and older	65 years and older	Census 1970	1 July 1976
Alcona	1,706	1,213	2,300	1,700	17.1	19.0
Alger	1,371	951	1,500	1,100	11.1	11.2
Allegan	8,751	6,250	9,600	7,000	9.4	9.7
Alpena	3,794	2,600	4,800	3,400	8.5	10.2
Antrim	2,522	1,749	3,200	2,200	13.9	14.5
Arenac	1,930	1,387	2,300	1,700	12.5	12.8
Baraga	1,460	1,000	1,700	1,200	12.9	15.0
Barry	5,387	3,834	5,800	4,200	10.1	9.9
Bay	14,040	9,496	15,800	10,900	8.1	9.1
Benzie	1,774	1,221	2,200	1,500	14.3	14.5
Berrien	21,490	15,069	24,200	17,200	9.2	10.0
Branch	5,517	3,873	6,000	4,300	10.3	11.1
Calhoun	19,126	13,254	20,400	14,300	9.4	10.2
Cass	6,108	4,239	6,700	4,700	9.8	10.3
Charlevoix	2,600	1,868	2,900	2,100	11.4	11.1
Cheboygan	2,779	1,954	3,400	2,779	11.8	12.3
Chippewa	4,009	2,673	4,800	3,200	8.3	8.7
Clare	3,234	2,196	4,200	2,900	13.2	12.9
Clinton	4,883	3,349	5,400	3,700	6.9	7.2
Crawford	1,032	707	1,400	1,000	10.9	10.6
Delta	5,853	4,128	6,300	4,500	11.6	11.4
Dickinson	5,014	3,746	5,300	4,000	15.8	16.0
Eaton	7,144	4,887	7,800	5,400	7.1	6.9
Emmet	3,090	2,213	3,800	2,800	12.1	13.3
Genesee	43,072	28,959	49,200	33,600	6.5	7.5

TABLE I-12. MICHIGAN'S ELDERLY POPULATION, BY COUNTY: CENSUS 1970 AND 1 JULY 1976 (cont.)

County	Census 1970		1 July 1976		Percentage of total population 65 years and older	
	60 years and older	65 years and older	60 years and older	65 years and older	Census 1970	1 July 1976
Gladwin	2,495	1,730	3,300	2,300	12.9	13.5
Gogebic	4,650	3,354	5,000	3,700	16.3	18.2
Grand Traverse	6,036	4,238	7,400	5,300	10.9	11.5
Gratiot	5,369	3,955	5,400	4,100	10.1	10.4
Hillsdale	5,850	4,184	6,500	4,700	11.3	11.7
Houghton	6,761	4,728	7,600	5,400	13.7	14.8
Huron	5,994	4,334	6,800	5,000	12.8	14.2
Ingham	25,538	17,638	28,200	19,800	6.8	7.4
Ionia	6,073	4,412	6,200	4,600	9.7	9.5
Iosco	3,491	2,414	4,600	3,200	9.7	11.3
Iron	3,600	2,600	3,267	2,281	16.6	17.3
Isabella	4,117	2,842	4,600	3,200	6.4	6.2
Jackson	18,542	13,049	19,800	14,100	9.2	9.6
Kalamazoo	22,519	15,526	25,100	17,600	7.7	8.7
Kalkaska	1,114	785	1,400	1,000	14.6	9.7
Kent	53,704	38,078	58,800	42,300	9.3	9.9
Keweenaw	533	333	700	400	14.8	18.3
Lake	1,578	1,167	2,000	1,500	20.6	21.7
Lapeer	5,660	4,036	6,000	4,300	7.7	6.9
Leelanau	1,920	1,320	2,200	1,500	12.2	12.4
Lenawee	10,505	7,491	12,000	8,700	9.2	10.0
Livingston	6,599	4,500	8,100	5,600	7.7	6.9
Luce	1,342	922	1,400	1,000	13.6	13.1
Mackinac	1,696	1,170	2,000	1,400	12.2	13.3
Macomb	46,345	29,715	64,200	41,800	4.8	6.2

TABLE I-12. MICHIGAN'S ELDERLY POPULATION, BY COUNTY: CENSUS 1970 AND 1 JULY 1976 (cont.)

County	Census 1970		1 July 1976		Percentage of total population 65 years and older	
	60 years and older	65 years and older	60 years and older	65 years and older	Census 1970	1 July 1976
Manistee	3,858	2,742	4,400	3,200	13.5	14.5
Marquette	7,486	5,164	8,000	5,600	8.0	7.9
Mason	4,071	2,957	4,600	3,400	13.1	13.6
Mecosta	3,386	2,415	4,000	2,900	8.7	8.3
Menominee	4,500	3,202	4,900	3,500	13.1	14.0
Midland	5,208	3,445	6,700	4,500	5.4	6.6
Missaukee	1,340	916	1,600	1,100	12.9	12.1
Monroe	12,970	8,720	14,900	10,200	7.4	8.0
Montcalm	6,164	4,417	7,000	5,100	11.2	11.4
Montmorency	1,237	825	1,800	1,200	15.8	17.6
Muskegon	19,366	13,303	22,000	15,300	8.5	9.7
Newaygo	4,538	3,231	5,400	3,900	11.6	12.5
Oakland	91,287	59,992	117,600	78,500	6.6	8.1
Oceana	2,966	2,120	3,300	2,400	11.8	11.6
Ogemaw	2,545	1,785	3,300	2,300	15.0	15.7
Ontonagon	1,648	1,028	2,100	1,300	9.8	11.4
Osceola	2,478	1,795	2,900	2,100	12.1	11.9
Oscoda	1,166	803	1,500	1,000	17.0	15.5
Otsego	1,464	984	2,000	1,400	9.5	9.7
Ottawa	13,919	9,657	16,800	11,800	7.6	8.3
Presque Isle	2,185	1,482	2,800	1,900	11.6	13.7
Roscommon	2,587	1,699	4,100	2,700	17.2	18.0
Saginaw	24,611	16,780	27,000	18,700	7.7	8.3
St. Clair	16,959	11,789	19,000	13,400	9.9	10.3
St. Joseph	7,395	5,169	8,300	5,900	11.0	11.5

TABLE I-12. MICHIGAN'S ELDERLY POPULATION, BY COUNTY: CENSUS 1970 AND 1 JULY 1976 (cont.)

County	Census 1970		1 July 1976		Percentage of total population 65 years and older	
	60 years and older	65 years and older	60 years and older	65 years and older	Census 1970	1 July 1976
Sanilac	5,782	4,209	6,300	4,700	12.0	11.8
Schoolcraft	1,579	1,126	1,700	1,300	13.7	14.2
Shiawassee	7,233	5,077	7,500	5,300	8.1	7.8
Tuscola	6,053	4,334	6,300	4,600	9.0	8.4
Van Buren	8,901	6,475	9,700	7,200	11.6	11.5
Washtenaw	19,656	13,535	21,500	15,100	5.8	6.1
Wayne	359,080	249,070	345,200	243,200	9.4	9.8
Wexford	3,344	2,369	4,000	2,800	12.1	13.0
Michigan	1,086,346	749,633	1,191,600	833,600	8.5	9.2

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC1-B24, Table 16; and National Clearing House on Aging, The Elderly Population: Estimates by County 1976 (Washington, D.C.: 1978), Table I.

TABLE I-14. FAMILY CHARACTERISTICS, RACE, AGE DISTRIBUTION, AND METROPOLITAN RESIDENCE OF PERSONS 14 YEARS OLD AND OLDER, BY SEX, SURVEY OF INCOME AND EDUCATION, MICHIGAN AND THE UNITED STATES: SPRING 1976

(In thousands)

Item	Michigan		United States	
	Male	Female	Male	Female
In families				
Husband-wife families	1,996	1,996	47,046	47,046
Family head, no spouse present	69	333	1,541	7,494
Other relative	913	848	20,703	18,648
Unrelated individuals	313	461	8,636	11,996
White	2,958	3,214	68,872	74,508
Black	312	398	7,837	9,300
Spanish origin[a]	27	32	3,468	3,794
14 to 24 years	966	1,020	21,812	22,072
25 to 34 years	633	688	15,461	15,974
35 to 44 years	478	541	11,062	11,734
45 to 54 years	508	504	11,321	12,143
55 to 64 years	386	420	9,340	10,468
65 or older	320	466	8,930	12,791
Inside metropolitan areas				
In central cities	763	928	22,473	25,676
Outside central cities	1,708	1,864	31,026	33,062
Outside metropolitan areas	819	847	24,427	26,446
TOTAL	3,291	3,639	77,926	85,183

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, No. 111 (Washington, D.C.: 1978), Tables 1B and 7B.

a. Persons of Spanish origin may be of any race.

TABLE I-15. ESTIMATES OF THE NUMBER OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: CENSUS 1970 AND 1 JULY 1975, 1976, AND 1977

Item	1970	1975	1976	1977
Husband-wife households				
Michigan	n.a.	2,012,000	2,016,000	2,020,000
United States	n.a.	47,187,000	47,556,000	47,758,000
Total				
Michigan	2,653,059	2,933,000	2,985,000	3,029,000
United States	63,449,747	71,535,000	73,297,000	74,601,000

SOURCE: Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, no. 710 (Washington, D.C.: 1977), Table 1, and no. 725 (Washington, D.C.: 1978), Table 1.

n.a.: not available.

TABLE I-16. AGE OF HOUSEHOLD HEADS IN MICHIGAN: CENSUS 1970 AND SPRING 1976

Age group	1970	1976
Less than 25 years	206	246
25 years-34 years	511	655
35 years-44 years	511	545
45 years-64 years	968	1,065
65 and older	457	515
Total	2,653	3,039

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC1-B24, Table 22; and Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, no. 334 (Washington, D.C.: 1979), Table 5.

NOTE: The number of households for 1976 is not the same as the figure shown in the table above due to differences in methodology. These figures were derived from the Survey of Income and Education, a sample of households. Those in Table I-15 were developed on the basis of percentages calculated from the 1970 Census and applied to state population estimates. The state figures so derived were then adjusted proportionately to the number of households in the United States.

TABLE I-17. NUMBER OF PERSONS PER HOUSEHOLD IN MICHIGAN, BY COUNTY: CENSUS 1960 AND 1970

County	Persons per household 1960	1970	County	Persons per household 1960	1970
Alcona	3.26	2.95	Lake	2.94	2.85
Alger	3.48	3.23	Lapeer	3.52	3.54
Allegan	3.51	3.40	Leelanau	3.45	3.24
Alpena	3.58	3.47	Lenawee	3.45	3.26
Antrim	3.30	3.18	Livingston	3.50	3.42
Arenac	3.35	3.23	Luce	3.50	3.17
Baraga	3.42	3.19	Mackinac	3.56	3.25
Barry	3.32	3.27	Macomb	3.78	3.63
Bay	3.54	3.37	Manistee	3.22	3.09
Benzie	3.23	3.04	Marquette	3.39	3.23
Barrien	3.33	3.19	Mason	3.23	3.07
Branch	3.23	3.13	Mecosta	3.32	3.06
Calhoun	3.28	3.10	Menominee	3.40	3.18
Cass	3.41	3.22	Midland	3.77	3.51
Charlevoix	3.35	3.27	Missaukee	3.54	3.21
Cheboygan	3.49	3.32	Monroe	3.63	3.54
Chippewa	3.50	3.30	Montcalm	3.28	3.18
Clare	3.33	3.10	Montmorency	3.23	2.94
Clinton	3.66	3.55	Muskegon	3.50	3.32
Crawford	3.25	3.21	Newaygo	3.41	3.28
Delta	3.43	3.28	Oakland	3.61	3.40
Dickinson	3.13	2.97	Oceana	3.41	3.29
Eaton	3.46	3.43	Ogemaw	3.34	3.08
Emmet	3.33	3.25	Ontonagon	3.34	3.25
Genesee	3.53	3.39	Osceola	3.39	3.20
Gladwin	3.45	3.18	Oscoda	3.23	2.92
Gogebic	3.08	2.86	Otsego	3.45	3.37
Grand Traverse	3.31	3.22	Ottawa	3.56	3.49
Gratiot	3.42	3.32	Presque Isle	3.70	3.28
Hillsdale	3.32	3.17	Roscommon	3.01	2.74
Houghton	3.11	2.88	Saginaw	3.57	3.45
Huron	3.54	3.27	St. Clair	3.41	3.27
Ingham	3.30	3.10	St. Joseph	3.21	3.09
Ionia	3.46	3.37	Sanilac	3.41	3.29
Iosco	3.31	3.22	Schoolcraft	3.45	3.18
Iron	3.16	2.75	Shiawassee	3.44	3.38
Isabella	3.58	3.35	Tuscola	3.46	3.41
Jackson	3.33	3.23	Van Buren	3.28	3.23
Kalamazoo	3.31	3.15	Washtenaw	3.24	3.05
Kalkaska	3.25	3.01	Wayne	3.35	3.17
Kent	3.37	3.25	Wexford	3.31	3.13
Keweenaw	2.91	2.72			
			MICHIGAN	3.42	3.27

SOURCES: Bureau of the Census, U.S. Census of Population: 1960, General Population Characteristics, Michigan (Washington, D.C.: 1961), Final Report PC(1)-24B, Table 13; and Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1970), Final Report PC(1)-B24, Table 36.

TABLE I-18. PERCENTAGE OF POPULATION IN GROUP QUARTERS IN MICHIGAN, BY COUNTY: CENSUS 1960 AND 1970

County	Percentage 1960	Percentage 1970	County	Percentage 1960	Percentage 1970
Alcona	0.4	0.7	Lake	0.6	0.1
Alger	1.3	2.2	Lapeer	9.5	6.5
Allegan	0.6	0.5	Leelanau	1.5	0.8
Alpena	0.4	0.9	Lenawee	2.4	3.2
Antrim	1.2	1.1	Levingston	1.5	2.1
Arenac	0.7	1.2	Luce	25.7	18.4
Baraga	1.5	2.9	Mackinac	4.2	1.1
Barry	1.1	1.6	Macomb	0.6	0.5
Bay	0.5	0.7	Manistee	0.8	0.6
Benzie	0.4	1.0	Marquette	5.9	9.3
Berrien	1.2	1.2	Mason	0.3	1.1
Branch	8.8	7.5	Mecosta	9.4	14.8
Calhoun	3.2	3.1	Menominee	1.3	1.2
Cass	0.7	0.6	Midland	0.2	1.0
Charlevoix	0.6	1.0	Missaukee	---	0.2
Cheboygan	1.2	1.1	Monroe	1.0	0.7
Chippewa	3.9	5.4	Montcalm	0.3	0.5
Clare	0.4	0.8	Montmorency	---	0.1
Clinton	0.5	0.5	Muskegon	0.8	0.9
Crawford	6.0	2.3	Newaygo	0.5	1.0
Delta	0.9	1.2	Oakland	1.1	1.1
Dickinson	2.1	1.8	Oceana	0.5	0.6
Eaton	1.3	1.1	Ogemaw	0.4	0.6
Emmet	1.7	2.5	Ontonagon	1.1	0.6
Genesee	0.9	0.9	Osceola	0.4	0.7
Gladwin	0.6	0.6	Oscoda	0.7	1.5
Gogebic	1.0	1.2	Otsego	2.6	2.1
Grand Traverse	10.3	6.2	Ottawa	1.2	2.3
Gratiot	2.7	4.2	Presque Isle	2.0	2.0
Hillsdale	1.8	2.6	Roscommon	---	0.8
Houghton	5.6	8.2	Saginaw	0.9	1.0
Huron	0.9	0.9	St. Clair	0.5	0.8
Ingham	5.2	8.6	St. Joseph	0.7	0.8
Ionia	7.7	5.8	Sanilac	0.1	0.5
Iosco	2.4	5.3	Schoolcraft	0.8	1.0
Iron	2.0	1.9	Shiawassee	0.7	0.3
Isabella	11.1	15.8	Tuscola	4.9	3.8
Jackson	5.4	4.7	Van Buren	0.5	0.6
Kalamazoo	6.2	7.0	Washtenaw	11.1	10.6
Kalkaska	0.2	0.2	Wayne	1.5	1.4
Kent	1.8	2.1	Wexford	0.6	1.1
Keweenaw	3.1	5.4			
			MICHIGAN	2.1	2.3

SOURCES: Bureau of the Census, U.S. Census of Population: 1960, General Population Characteristics, Michigan (Washington, D.C.: 1961), Final Report PC(1)-24B, Table 13; and Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC(1)-B24, Table 16.

TABLE I-19. NUMBER OF MICHIGAN NATIVES RESIDING IN MICHIGAN AND IN OTHER STATES, AND NUMBER OF NATIVES OF OTHER STATES RESIDING IN MICHIGAN, BY RACE AND FOR PERSONS OF SPANISH ORIGIN: CENSUS 1970

	White	Negro	Persons of Spanish origin	Total
Born in Michigan	6,928,863	526,043	101,364	7,478,424
Living in another state or District of Columbia	1,336,369	43,636	17,544	1,384,629
Living in Michigan	5,592,494	482,407	83,820	6,093,795
Living in Michigan	7,142,219	903,775	126,870	8,071,859
Born in another state or District of Columbia	1,549,725	421,368	43,050	1,978,064
Net gain through interstate movement	213,356	377,732	25,506	593,435

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, Subject Reports, State of Birth (Washington, D.C.: 1973), Final Report PC(2)-2A, Tables 6,7,8,9.

NOTE: Based on 5 percent sample of households. Excludes native persons born outside the United States and persons for whom state of birth was not reported.

TABLE I-20. RESIDENCE IN 1965 OF THE MICHIGAN POPULATION 5 YEARS OLD AND OVER, BY RACE AND FOR PERSONS OF SPANISH LANGUAGE: CENSUS 1970

Residence in 1965	White	Negro	Persons of Spanish origin	Total
Same house	4,049,236	400,413	41,425	4,463,565
Different house in U.S.	2,754,921	397,585	50,461	3,167,298
Same county	1,607,344	303,689	31,797	1,919,015
Different county	1,147,577	93,896	18,664	1,248,283
Same state	736,801	17,800	6,448	757,835
Different state[a]	410,776	76,096	12,216	490,448
Abroad	64,161	4,192	5,956	73,466
Moved, 1965 residence not reported	286,920	77,659	6,191	366,977
TOTAL	7,155,238	879,849	104,033	8,071,306

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 50.

NOTE: Based on 15 percent sample of households.

a. See Table I-24 for state detail.

TABLE I-13. MICHIGAN HOUSEHOLD AND FAMILY CHARACTERISTICS, BY RACE AND FOR PERSONS OF SPANISH LANGUAGE: CENSUS 1970, AND FOR ALL PERSONS, SPRING 1976

Item	Census 1970				Spring 1976
	White	Negro	Persons of Spanish language	Total	
In households	7,657,510	968,764	119,241	8,674,655	9,045,000
Number of households	2,362,185	277,425	27,903	2,653,059	3,029,000
Primary individual: male	152,128	30,325	1,722	184,255	--
female	257,087	28,694	1,045	286,988	--
Family head: male	1,799,073	162,280	23,174	1,970,534	--
female	153,897	56,126	1,962	211,282	--
Wife of head	1,754,470	150,684	22,343	1,915,024	1,995,000
Child of head	3,173,572	432,381		3,625,741	--
Other relative of head	254,303	79,462	67,462[a]	336,713	--
Not related to head	112,980	28,812	1,533	144,118	--
In group quarters	175,964	22,302	1,446	200,428	31,000
Inmate of institution	71,364	14,354	433	86,323	--
Other	104,600	7,948	1,013	114,105	--
Number of families	1,952,970	218,406	25,136	2,181,816	2,398,000
With own children under 18 years	1,120,368	135,694	18,746	1,262,763	--
With own children under 6 years only	262,440	33,259	11,228	297,891	--
Number of husband-wife families	1,754,067	152,241	22,439	1,915,024	1,996,000
With own children under 18 years	1,025,188	90,385	16,980	1,121,282	--
With own children under 6 years only	247,317	24,138	10,445	273,449	--
Number of families with female head	153,897	56,126	1,962	211,282	333,000
With own children under 18 years	81,659	41,447	1,441	123,943	--
With own children under 6 years only	13,624	8,408	605	22,199	--
Total population	7,833,474	991,066	120,687	8,875,083	9,076,000

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 48; Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC(1)-B24, Table 22; and Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, no. 334 (Washington, D.C.: 1979), Tables 3 and 6.

NOTE: Spanish language figures based on 15 percent sample of households.

a. Includes "child of head."

TABLE I-21. NUMBER OF MICHIGAN RESIDENTS IN 1970 WHO LIVED IN ANOTHER STATE IN 1965, AND NUMBER OF RESIDENTS OF OTHER STATES IN 1970 WHO LIVED IN MICHIGAN IN 1965, BY STATE

Resided in Michigan in 1970		Resided in Michigan in 1965	
State of 1965 residence	Number	State of 1970 residence	Number
Maine	1,647	Maine	984
New Hampshire	895	New Hampshire	920
Vermont	361	Vermont	600
Massachusetts	6,350	Massachusetts	6,813
Rhode Island	1,337	Rhode Island	1,750
Connecticut	3,783	Connecticut	4,243
New York	23,761	New York	16,165
New Jersey	9,831	New Jersey	8,290
Pennsylvania	18,036	Pennsylvania	13,182
Ohio	58,350	Ohio	43,743
Indiana	36,433	Indiana	26,215
Illinois	50,381	Illinois	37,220
Wisconsin	17,801	Wisconsin	18,066
Minnesota	7,922	Minnesota	8,562
Iowa	5,351	Iowa	4,572
Missouri	11,510	Missouri	10,246
North Dakota	2,164	North Dakota	1,052
South Dakota	1,559	South Dakota	809
Nebraska	3,202	Nebraska	2,325
Kansas	5,291	Kansas	4,778
Delaware	997	Delaware	933
Maryland	6,226	Maryland	7,599
District of Columbia	1,741	District of Columbia	1,248
Virginia	11,211	Virginia	11,585
West Virginia	7,313	West Virginia	2,796
North Carolina	7,189	North Carolina	8,568
South Carolina	3,293	South Carolina	4,149
Georgia	9,461	Georgia	9,417
Florida	18,880	Florida	65,642
Kentucky	16,004	Kentucky	14,346

TABLE I-21. NUMBER OF MICHIGAN RESIDENTS IN 1970 WHO LIVED IN ANOTHER STATE IN 1965, AND NUMBER OF RESIDENTS OF OTHER STATES IN 1970 WHO LIVED IN MICHIGAN IN 1965, BY STATE (cont.)

Resided in Michigan in 1970		Resided in Michigan in 1965	
State of 1965 residence	Number	State of 1970 residence	Number
Tennessee	15,446	Tennessee	12,711
Alabama	15,439	Alabama	6,281
Mississippi	9,157	Mississippi	2,723
Arkansas	8,070	Arkansas	4,782
Louisiana	5,546	Louisiana	3,522
Oklahoma	3,680	Oklahoma	4,105
Texas	17,486	Texas	20,173
Montana	1,349	Montana	1,164
Idaho	903	Idaho	849
Wyoming	836	Wyoming	1,264
Colorado	5,713	Colorado	9,131
New Mexico	2,194	New Mexico	2,481
Arizona	5,109	Arizona	14,353
Utah	1,265	Utah	1,001
Nevada	1,091	Nevada	1,763
Washington	4,148	Washington	7,611
Oregon	1,851	Oregon	2,942
California	40,127	California	60,484
Alaska	1,152	Alaska	2,525
Hawaii	1,606	Hawaii	2,680

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, Subject Reports, Migration Between State Economic Areas (Washington, D.C.: 1972), Final Report PC(2)-2E, Table 4.

NOTE: Based on 15 percent sample of households.

TABLE I-22. NATIVITY AND PARENTAGE, AND COUNTRY OF ORIGIN OF FOREIGN STOCK OF THE MICHIGAN POPULATION: CENSUS 1960 AND 1970

Item	1960	1970
Native population	7,295,341	8,450,759
Native parentage	5,926,438	7,190,798
Foreign or mixed parentage	1,368,903	1,259,961
Foreign born	529,624	424,309
TOTAL	7,824,965	8,875,068
Country of origin of foreign stock[a]		
United Kingdom	179,826	148,612
Ireland	34,527	28,667
Norway	16,980	12,899
Sweden	44,991	33,639
Denmark	15,091	11,951
Netherlands	85,797	72,763
Switzerland	7,642	5,442
France	12,660	12,149
Germany	234,183	184,192
Poland	255,467	214,085
Czechoslovakia	38,475	32,176
Austria	43,675	40,730
Hungary	46,811	39,202
Yugoslavia	30,736	30,375
U.S.S.R.	77,441	65,606
Lithuania	21,236	16,908
Greece	18,221	19,519
Italy	120,363	117,064
Other Europe	107,127	94,603
Asia	37,715	55,181
Canada	417,228	353,154
Mexico	24,298	31,067
Cuba	1,038	3,231
Other America	7,688	13,339
All other	4,264	7,129
Not reported	15,047	40,587
TOTAL	1,898,527	1,684,270

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 45.

NOTE: Based on 15 percent sample of households.

a. Foreign born plus foreign or mixed foreign-U.S. parentage.

TABLE I-23. PERMANENT RESIDENT ALIENS WHO REPORTED UNDER THE ALIEN ADDRESS PROGRAM IN MICHIGAN AND THE UNITED STATES, BY SELECTED NATIONALITY: YEAR ENDED 30 JUNE 1976 AND 1977

Area[a]	Michigan		United States	
	1976	1977	1976	1977
Canada	28,510	28,112	306,647	305,475
United Kingdom	11,176	11,055	227,103	287,320
Germany	7,342	7,300	162,798	162,764
Italy	6,904	6,835	203,525	196,761
Poland	6,822	6,340	82,407	79,291
Mexico	6,038	5,872	885,971	938,972
Iraq	3,850	4,885	8,401	10,584
Yugoslavia	4,058	4,450	39,914	38,669
India	3,644	4,204	83,191	95,557
Philippines	3,590	4,033	188,671	203,971
Korea	2,822	3,188	110,171	130,492
West Indies	2,603	2,701	558,829	578,130
Lebanon	1,904	2,641	11,477	15,731
Greece	2,441	2,384	71,676	68,288
Netherlands	1,945	1,865	34,791	35,072
China & Taiwan	1,776	1,711	116,636	121,312
Jordan	1,253	1,348	10,897	11,382
U.S.S.R.	1,311	1,267	27,604	30,019
Vietnam	1,375	1,171	60,723	55,409
Cuba	1,177	1,151	319,325	311,188
All other	21,419	22,804	754,277	774,919
TOTAL	121,960	125,317	4,265,034	4,451,306

SOURCE: Immigration and Naturalization Service, Annual Report, 1976 and 1977 (Washington, D.C.: annually), Table 35.

NOTE: Countries or areas listed are those with 1,000 or more permanent resident alien addresses in Michigan in 1977.

a. Country of birth or origin.

TABLE I-24. LEGAL ENTRIES OF ALIENS AND CITIZENS CROSSING INTERNATIONAL LAND BOUNDARIES: YEAR ENDED 30 SEPTEMBER 1977

Port	Number of persons crossing[a]		
	Aliens	Citizens	Total
Algonac	97,718	45,703	143,421
Alpena[b]	55	177	232
Detroit			
Battle Creek	12	54	66
International Bridge	2,418,523	2,978,095	5,396,618
Detroit & Canada Tunnel	3,122,874	2,780,554	5,903,428
Detroit City Airport	1,176	2,077	3,253
Detroit Metropolitan Airport	1,626	3,790	5,416
Detroit River and River Rouge Terminals[c]	2	1	3
Grand Rapids[d]	76	108	184
Detroit total	5,544,289	5,764,679	11,308,968
Escanaba[e]	4	19	23
Houghton	47	225	272
Isle Royale[f]	20	32	52
Marine City	91,369	100,971	192,340
Marquette	66	92	158
Muskegon	148	146	294
Port Huron	2,074,763	2,206,584	4,281,347
Roberts Landing	37,518	65,612	103,130
Rogers City[g]	—	4	4
Saginaw	104	245	349
Sault Ste. Marie	1,018,703	853,034	1,871,737
Michigan-Canadian total	8,864,804	9,037,523	17,902,327
U.S.-Canadian border	49,876,443	35,700,778	85,577,221
U.S.-Mexican border	100,391,062	56,401,288	156,792,350
U.S. TOTAL	150,267,505	92,102,066	242,369,571

SOURCE: Immigration and Naturalization Service, Annual Report, 1977 (Washington, D.C.: annually), Table 19.

a. Each entry of the same person counted separately.
b. October and November 1976, and April-September 1977.
c. May 1977.
d. June-September 1977.
e. April-September 1977.
f. October 1976 and June, August, and September 1977.
g. October-December 1976, and April-September 1977.

TABLE I-25. POPULATION PROJECTIONS FOR MICHIGAN, BY AGE AND SEX: 1970-2000 (cont.)

Age	1985			1990			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	388,185	371,468	759,653	404,510	387,033	791,543	357,541	342,283	699,824
5-9	376,590	362,423	739,013	411,457	395,633	807,090	412,552	396,693	809,245
10-14	429,171	414,110	843,281	392,617	380,353	772,969	443,599	429,020	872,618
15-19	460,306	448,833	909,139	418,411	407,181	825,593	416,713	406,607	823,320
20-24	413,698	409,634	823,332	399,026	393,028	792,053	321,893	318,034	639,927
25-29	341,609	376,545	718,154	357,707	374,134	731,841	302,326	316,284	618,611
30-34	310,975	366,172	677,147	377,955	400,471	778,426	379,462	381,604	761,066
35-39	335,635	366,503	702,138	328,766	371,205	699,971	410,488	402,854	813,342
40-44	336,458	289,298	625,756	326,087	356,881	682,967	384,162	395,063	779,225
45-49	236,290	207,238	443,529	335,636	292,397	628,034	319,369	363,070	682,438
50-54	219,668	204,391	424,060	242,016	217,557	459,573	326,198	364,580	690,778
55-59	255,012	263,272	518,284	215,892	207,222	423,113	323,984	299,536	623,520
60-64	222,261	251,926	474,187	231,250	251,350	482,600	215,441	210,908	426,349
65-69	164,191	200,379	364,571	184,273	227,137	411,411	162,760	178,719	341,479
70-74	112,998	148,029	261,027	125,361	174,556	299,917	146,423	196,687	343,111
75-79	72,846	108,018	180,864	84,389	125,895	210,284	103,759	165,192	268,950
80-84	50,822	83,901	134,722	54,702	89,947	144,649	68,067	119,875	187,942
85 and over	35,616	68,214	103,829	34,536	69,187	103,723	40,402	82,396	122,798
TOTAL	4,762,332	4,940,354	9,702,685	4,924,590	5,121,168	10,045,759	5,135,138	5,369,405	10,504,543
MEDIAN	29.56	31.16	30.42	31.04	32.72	31.91	34.18	36.16	35.17

SOURCE: Michigan Department of Management and Budget, Population Projections for Michigan to the Year 2000 (Lansing: Information Systems Division, Office of the Budget, 1978), Table 3.

TABLE I-26. POPULATION PROJECTIONS FOR MICHIGAN COUNTIES, BY REGION: 1 APRIL 1970-2000

	1970	1975	1980	1985	1990	1995	2000
Region I	4,732,000	4,740,000	4,796,000	4,901,000	5,002,000	5,077,000	5,103,000
Livingston	59,000	77,000	99,600	124,700	151,100	177,000	201,500
Macomb	625,300	666,300	699,800	736,100	769,900	791,800	798,200
Monroe	118,500	126,000	138,100	152,600	167,900	182,700	196,100
Oakland	907,900	963,300	1,006,100	1,047,300	1,085,400	1,115,100	1,130,700
St. Clair	120,200	129,700	141,300	156,100	171,600	186,600	199,700
Washtenaw	234,100	248,200	270,200	304,100	337,800	368,100	394,200
Wayne	2,666,800	2,529,100	2,441,300	2,379,800	2,318,600	2,255,500	2,182,800
Region 2	262,000	273,000	283,000	293,000	300,000	305,000	308,000
Hillsdale	37,200	40,100	42,100	43,700	45,000	46,200	47,100
Jackson	143,300	146,700	151,100	155,400	159,300	162,300	164,100
Lenawee	81,600	86,300	89,900	93,500	95,600	96,500	96,600
Region 3	467,000	473,000	482,000	498,000	514,000	527,000	535,000
Barry	38,200	41,300	44,200	47,100	50,200	53,200	55,600
Branch	37,900	38,200	38,700	41,000	43,300	44,500	44,700
Calhoun	142,000	141,100	140,600	140,300	139,000	136,200	132,000
Kalamazoo	201,600	201,400	204,500	211,100	219,400	226,600	232,100
St. Joseph	47,400	50,800	54,400	58,400	62,300	66,300	70,100
Region 4	263,000	227,000	289,000	302,000	316,000	330,000	343,000
Berrien	163,900	170,000	172,400	175,700	179,700	183,700	187,300
Cass	43,300	45,600	49,300	53,200	57,400	61,500	64,600
Van Buren	56,200	61,400	66,900	73,000	79,300	85,200	90,600
Region 5	560,000	577,000	587,000	605,000	623,000	637,000	644,000
Genesee	444,300	446,600	444,100	448,400	452,200	452,900	449,500
Lapeer	52,300	61,300	69,400	77,800	86,600	95,000	102,100
Shiawassee	63,100	69,000	73,900	79,000	84,300	89,100	92,600
Region 6	378,000	398,000	417,000	441,000	467,000	490,000	507,000
Clinton	48,500	52,300	56,800	61,500	66,700	71,500	75,100
Eaton	68,900	76,900	84,800	93,200	102,600	111,400	118,900
Ingham	261,000	268,800	275,100	286,300	297,600	306,700	313,200
Region 7	690,000	740,000	777,000	818,000	857,000	890,000	914,000
Arenac	11,100	13,000	14,400	15,600	16,900	17,900	18,500
Bay	117,300	120,100	121,400	122,100	122,300	122,400	122,100
Clare	16,700	21,100	25,100	28,900	32,200	34,800	36,500

TABLE I-25. POPULATION PROJECTIONS FOR MICHIGAN, BY AGE AND SEX: 1970-2000

Age	Census 1970			1975			1980		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	410,096	394,367	804,463	384,259	366,711	750,971	353,232	338,201	691,432
5-9	471,266	452,552	923,818	441,919	425,319	867,238	413,285	396,245	809,530
10-14	498,844	480,421	979,265	482,733	465,737	948,470	471,330	455,869	927,199
15-19	436,420	436,204	872,624	471,623	473,817	945,440	475,110	465,493	940,604
20-24	328,837	373,905	702,742	352,077	386,721	738,798	397,370	412,008	809,378
25-29	293,503	300,095	593,598	283,258	343,700	626,958	273,871	342,083	615,953
30-34	239,490	249,275	488,765	331,774	303,427	635,201	318,116	361,462	679,578
35-39	230,493	243,579	474,072	249,916	226,144	476,060	346,169	298,056	644,224
40-44	259,354	268,896	528,250	218,158	203,843	422,001	233,678	202,487	436,165
45-49	257,814	271,407	529,221	258,305	256,450	514,755	212,981	193,786	406,767
50-54	231,567	245,220	477,787	251,698	265,530	517,228	262,015	262,806	524,820
55-59	201,328	209,925	411,253	218,162	234,677	452,838	244,797	263,788	508,585
60-64	162,083	174,187	336,270	178,831	190,927	369,758	198,204	222,399	420,603
65-69	123,237	140,340	263,577	128,147	146,294	274,441	147,940	169,498	317,438
70-74	89,288	113,757	203,045	88,480	115,715	204,195	96,550	125,621	222,172
75-79	61,889	84,670	146,559	68,290	98,647	166,938	67,024	100,062	167,086
80-84	33,520	51,771	85,291	51,720	76,596	128,316	54,067	85,826	139,893
85 and over	19,619	34,864	54,483	25,220	45,004	70,223	34,902	61,407	96,309
TOTAL	4,348,648	4,526,435	8,875,083	4,484,570	4,625,259	9,109,829	4,600,641	4,757,097	9,357,738
MEDIAN	25.49	27.03	26.28	27.26	27.82	27.56	28.19	29.51	28.94

TABLE I-26. POPULATION PROJECTIONS FOR MICHIGAN COUNTIES, BY REGION: 1 APRIL 1970-2000 (cont.)

	1970	1975	1980	1985	1990	1995	2000
Region 7 (cont.)							
Gladwin	13,500	16,700	19,300	21,900	24,300	26,200	27,800
Gratiot	39,200	39,900	40,200	41,100	42,200	42,700	42,800
Huron	34,100	35,700	37,100	39,000	41,100	42,800	43,900
Iosco	24,900	28,500	31,400	35,500	39,100	41,600	43,900
Isabella	44,600	49,600	52,700	57,600	62,400	66,300	69,500
Midland	63,800	67,300	71,400	74,800	77,800	80,500	82,200
Ogemaw	11,900	14,700	17,200	19,700	21,800	23,700	25,300
Roscommon	9,900	14,400	16,600	18,800	21,100	23,300	25,300
Saginaw	219,700	226,400	229,700	233,000	235,900	238,100	238,700
Sanilac	34,900	38,900	42,500	46,500	50,300	53,800	56,700
Tuscola	48,600	53,300	57,700	63,300	69,600	75,700	81,100
Region 8	662,000	699,000	736,000	781,000	827,000	866,000	898,000
Allegan	66,600	71,100	77,200	84,100	90,900	97,200	102,500
Ionia	45,800	47,500	50,000	52,800	55,700	58,300	60,700
Kent	411,000	424,000	436,700	453,600	469,700	482,500	492,000
Lake	5,700	6,700	7,600	9,000	11,100	13,300	14,900
Mason	22,600	24,600	25,800	27,900	30,700	33,000	34,700
Mecosta	28,000	33,800	38,000	43,900	49,800	54,500	58,400
Montcalm	39,700	43,600	47,500	51,300	55,500	59,700	63,700
Newaygo	28,000	31,000	34,200	37,600	41,000	43,800	45,900
Osceola	14,800	17,100	18,900	21,000	23,000	24,200	24,800
Region 9	94,000	109,000	121,000	134,000	148,000	160,000	170,000
Alcona	7,100	8,500	9,100	9,900	10,700	11,300	11,700
Alpena	30,700	32,900	35,500	38,000	40,700	43,600	46,500
Cheboygan	16,600	19,400	20,900	22,300	23,600	24,800	25,700
Crawford	6,500	8,200	9,900	11,500	13,000	14,500	15,800
Montmorency	5,200	6,900	8,000	9,200	10,500	11,700	12,500
Oscoda	4,700	6,100	7,000	7,900	8,900	9,500	9,800
Otsego	10,400	13,400	15,800	19,300	23,100	26,600	29,500
Presque Isle	12,800	13,900	14,900	16,000	17,000	18,100	18,900
Region 10	158,000	183,000	204,000	227,000	251,000	272,000	290,000
Antrim	12,600	15,400	17,500	19,600	21,900	23,900	25,400
Benzie	8,600	9,900	11,000	12,200	13,400	14,600	15,500
Charlevoix	16,500	18,500	20,800	23,400	25,800	27,400	28,500

II. HOUSING

About three-quarters of Michigan households were owner occupied in 1976, the highest figure in the nation. South Dakota was second (73 percent), and Indiana, Minnesota, Iowa, and Kansas tied for third (72 percent). In New York, the state with the lowest proportion, the figure was 50 percent. For the District of Columbia, it was 31 percent. These data were developed by the Bureau of the Census from the Survey of Income and Education, conducted in spring 1976.

The latest U.S. Census of Housing was conducted on 1 April 1970, on the occasion of the U.S. Census of Population. Previous to 1 April, the Bureau of the Census purchased a list of U.S. residential addresses from a commercial specialist, and off-duty postmen were employed to update and correct it. Every known household in the United States then received a census questionnaire with the request that it be completed on 1 April. Eighty percent of the households received a short questionnaire, and the other 20 percent received forms with additional questions according to whether they were part of a 15 percent or 5 percent sample. Census statistics for Tables II-1, II-2, II-3, II-5, II-7, and II-8 were collected from all occupied housing units insofar as was possible. Census statistics for Tables II-4 and II-6 were derived from the 15 percent sample, and those for Tables II-9, II-10, and II-11 from the 5 percent sample. Two tables in this Abstract, one in chapter XVI pertaining to automobile availability among housing units and one in chapter XVIII pertaining to home heating fuel, also were produced from the 5 percent sample.

Other data, such as the number of occupied housing units with Negro head of household, were collected at the same enumeration in conjunction with the population census. The number of households (Tables I-20 and I-21) is the same as the number of occupied housing units. Definitions of urban and rural and the derivation of statistics about race are explained in the introduction to chapter I.

Group quarters, which house five or more persons not related to the person in charge, are not included in the housing statistics. (The Michigan population living in group quarters is indicated in Table I-23.) A housing unit is defined as "a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters." The latter are those in which the occupants do not live and eat with any other persons in the structure and which have either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements (except when defined as group quarters). For vacant units, the criteria of separateness, direct access, and complete kitchen facilities for exclusive use are applied to the intended occupants, whenever possible.

"Mobile homes or trailers, tents, boats, or railroad cars are not enumerated if vacant, used only for business, or used for vacations."

"Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents, i.e., persons who consider the hotel as their usual place of residence or have no usual place of residence elsewhere."

Selected statistics for U.S. regions are published annually by the U.S. Bureau of the Census in the Current Housing Reports series. Useful information for the nation and individual states is published in the annual reports of the Federal Housing Administration. The data in Table II-12 were drawn from the three most recent of these reports.

Number	List of Tables	Page
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TABLE II-1. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY ROOM SIZE OF UNIT: URBAN AND RURAL, BY RACE AND TENURE OF INHABITANTS: CENSUS 1940, 1950, 1960, 1970, AND SPRING 1976

Item	1940	1950	1960	1970	1976
Owner occupied					2,264,000[a]
Urban	438,376	800,618	1,190,245	1,414,423	n.a.
White	428,543[b]	765,583	1,112,748[b]	1,266,192	n.a.
Negro	9,833[b]	34,566	77,497[b]	143,014	n.a.
Rural	335,379	408,357	475,358	560,125	n.a.
White	332,836[b]	405,098	470,644[b]	553,531	n.a.
Negro	2,543[b]	2,733	4,694[b]	5,096	n.a.
Renter occupied					716,000[a]
Urban	486,537	474,519	478,844	574,067	n.a.
White	449,522[b]	417,514	376,247[b]	440,726	n.a.
Negro	37,015[b]	56,047	102,597[b]	127,432	n.a.
Rural	135,722	107,208	94,632	104,444	n.a.
White	134,110[b]	105,726	92,248[b]	101,736	n.a.
Negro	1,612[b]	1,054	2,384[b]	1,883	n.a.
Rooms					
1 room	30,416	29,721	32,755	30,619	n.a.
2 rooms	63,495	76,366	55,520	56,425	n.a.
3 rooms	122,169	170,896	155,995	189,383	n.a.
4 rooms	172,144	305,174	352,078	425,856	n.a.
5 rooms	338,648	454,648	674,297	785,664	n.a.
6 rooms	295,188	364,385	509,185	613,550	n.a.
7 rooms	163,158	184,049	253,466	298,317	n.a.
8 rooms or more	197,891	178,591	205,783	253,245	n.a.
TOTAL	1,396,014[c]	1,790,702[d]	2,239,079	2,653,059	3,029,000

SOURCES: Bureau of the Census, Sixteenth Census of the United States: 1940, Housing, vol. 2, General Characteristics, Part 3: Iowa-Montana (Washington, D.C.: 1943), Tables 2 and 8; Bureau of the Census, U.S. Census of Housing: 1950, vol. 1, General Characteristics, chapter 22, Michigan (Washington, D.C.: 1952), Tables 2 and 9; Bureau of the Census, U.S. Census of Housing: 1960, vol. 1, States and Small Areas, Michigan (Washington, D.C.: 1962), Final Report HC(1)-24, Tables 2 and 3; Bureau of the Census, U.S. Census of Housing: 1970, General Housing Characteristics, Michigan (Washington, D.C.: 1971), Final Report HC(1)-A24, Tables 2 and 3; and Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-60, No. 108 (Washington, D.C.: 1977), Table 22.

a. Only totals available.

b. Includes other minority races.

c. Includes 12,905 units for which number of rooms was not reported.

d. Includes 26,872 units for which number of rooms was not reported.

n.a.: not available.

TABLE I-26. POPULATION PROJECTIONS FOR MICHIGAN COUNTIES, BY REGION: 1 APRIL 1970-2000 (cont.)

	1970	1975	1980	1985	1990	1995	2000
Region 10 (cont.)							
Emmet	18,300	21,200	23,100	25,200	27,400	29,300	30,500
Grand Traverse	39,200	45,100	49,600	55,900	62,400	68,600	74,100
Kalkaska	5,300	8,200	10,700	12,900	15,300	17,900	20,600
Leelanau	10,900	12,400	13,800	15,300	16,900	18,300	19,400
Manistee	20,100	21,500	22,800	24,100	25,500	26,600	27,300
Missaukee	7,100	8,700	10,200	11,600	12,800	13,700	14,500
Wexford	19,700	21,800	24,100	26,600	29,200	31,800	34,400
Region 11	49,000	54,000	47,000	50,000	53,000	55,000	57,000
Chippewa	32,400	36,000	28,200	30,300	32,100	33,200	33,800
Luce	6,800	7,100	7,600	8,500	9,200	9,500	9,900
Mackinac	9,700	10,600	11,100	11,700	12,200	12,700	13,100
Region 12	166,000	176,000	186,000	198,000	209,000	219,000	227,000
Alger	8,600	9,000	9,900	10,700	11,300	11,800	12,100
Delta	35,900	38,900	41,900	44,200	46,000	47,500	48,700
Dickinson	23,800	24,800	26,300	27,800	29,200	30,300	31,100
Marquette	64,700	69,600	72,300	77,600	83,200	88,100	92,300
Menominee	24,600	26,300	26,700	28,100	29,500	30,700	31,600
Schoolcraft	8,200	8,600	9,100	9,600	10,100	10,600	11,000
Region 13	90,000	93,000	97,000	102,000	107,000	112,000	116,000
Baraga	7,800	8,100	8,700	9,400	10,100	10,800	11,300
Gogebic	20,700	20,700	20,600	20,600	20,600	20,600	20,300
Houghton	34,700	36,900	38,300	40,600	43,300	45,900	48,300
Iron	13,800	14,100	14,700	15,100	15,500	16,000	16,500
Keweenaw	2,300	2,200	2,300	2,400	2,600	2,700	2,900
Ontonagon	10,500	11,200	12,500	13,700	14,800	15,700	16,500
Region 14	304,000	318,000	335,000	354,000	371,000	384,000	393,000
Muskegon	157,400	157,400	157,500	157,800	157,100	154,700	150,700
Oceana	18,000	20,500	23,300	25,700	28,300	30,600	32,300
Ottawa	128,200	140,400	154,700	170,200	185,300	199,100	210,100
MICHIGAN	8,875,000	9,110,000	9,358,000	9,703,000	10,046,000	10,325,000	10,505,000

SOURCE: Michigan Department of Management and Budget, Population Projection for Michigan to the Year 2000 (Lansing: Information Systems Division, Office of the Budget, 1978), Table I.
NOTE: Totals have been rounded.

TABLE I-27. PROJECTED COMPONENTS OF POPULATION CHANGE FOR MICHIGAN COUNTIES: 1975-2000

County	1 April 1975	1 April 2000	Change, 1975-2000 Number	Change, 1975-2000 Percent	Components of change 1975-2000 Births	Deaths	Net migration Number	Net migration Percent
Region 1	4,740,000	5,103,000	363,000	7.7	1,733,000	1,411,000	41,000	.9
Livingston	77,000	201,500	124,500	161.7	51,300	32,800	106,000	137.7
Macomb	666,300	798,200	131,900	19.8	237,400	194,500	88,800	13.3
Monroe	126,000	196,100	70,100	55.6	63,000	38,300	45,400	36.0
Oakland	963,300	1,130,700	167,400	17.4	337,300	294,800	124,900	13.0
St. Clair	129,700	199,700	70,000	54.0	65,000	49,000	54,000	41.6
Washtenaw	248,200	394,200	146,000	58.8	118,700	67,800	95,100	38.3
Wayne	2,529,100	2,182,800	-346,300	-13.7	860,400	733,700	-473,000	-18.7
Region 2	273,000	308,000	35,000	12.8	104,000	82,000	13,000	4.8
Hillsdale	40,100	47,100	7,000	17.5	15,900	14,000	5,100	12.7
Jackson	146,700	164,100	17,400	11.9	56,800	40,600	1,200	.8
Lenawee	86,300	96,600	10,300	11.9	31,400	27,500	6,400	7.4
Region 3	473,000	535,000	62,000	13.1	202,000	134,000	-7,000	-1.5
Barry	41,300	55,600	14,300	34.6	19,300	13,700	8,800	21.3
Branch	38,200	44,700	6,500	17.0	18,200	12,500	900	2.4
Calhoun	141,100	132,000	-9,100	-6.4	46,800	46,100	-9,900	-7.0
Kalamazoo	201,400	232,100	30,700	15.2	94,800	45,400	-18,700	-9.3
St. Joseph	50,800	70,100	19,300	38.0	23,200	15,700	11,800	23.2
Region 4	277,000	343,000	66,000	23.8	131,000	79,000	13,000	4.7
Berrien	170,000	187,300	17,300	10.2	77,108	41,800	-18,000	-10.6
Cass	45,600	64,600	19,000	41.7	22,300	16,100	12,900	28.3
Van Buren	61,400	90,600	29,200	47.6	32,000	21,200	18,400	30.0
Region 5	577,000	644,000	67,000	11.6	255,000	152,000	-35,000	-6.1
Genesee	446,600	449,500	2,900	.6	188,700	109,700	-76,100	-17.0
Lapeer	61,300	102,100	40,800	66.6	34,600	18,900	25,100	40.9
Shiawassee	69,000	92,600	23,600	34.2	31,300	23,600	15,800	22.9
Region 6	398,000	507,000	109,000	27.4	181,000	92,000	20,000	5.0
Clinton	52,300	75,100	22,800	43.6	23,900	13,700	12,700	24.3
Eaton	76,900	118,900	42,000	54.6	39,300	19,600	22,200	28.9
Ingham	268,800	313,200	44,400	16.5	117,600	58,800	-14,400	-5.4
Region 7	740,000	914,000	174,000	23.5	324,000	235,000	85,000	11.5
Arenac	13,000	18,500	5,500	42.3	6,700	6,100	4,900	37.7
Bay	120,100	122,100	2,000	1.7	40,900	32,700	-6,200	-5.2
Clare	21,100	36,500	15,400	73.0	10,400	13,700	18,700	88.6

TABLE I-27. PROJECTED COMPONENTS OF POPULATION CHANGE FOR MICHIGAN COUNTIES: 1975-2000 (cont.)

County	1 April 1975	1 April 2000	Change, 1975-2000		Components of change 1975-2000			
			Number	Percent	Births	Deaths	Net migration Number	Net migration Percent
Region 7 (cont.)								
Gladwin	16,700	27,800	11,100	66.5	8,300	8,000	10,800	64.7
Gratiot	39,900	42,800	2,900	7.3	19,000	13,700	-2,400	-6.0
Huron	35,700	43,900	8,200	23.0	17,600	14,900	5,500	15.4
Iosco	28,500	43,900	15,400	54.0	18,000	10,400	7,900	27.7
Isabella	49,600	69,500	19,900	40.1	22,500	11,000	8,300	16.7
Midland	67,300	82,200	14,900	22.1	26,000	19,600	8,500	12.6
Ogemaw	14,700	25,300	10,600	72.1	8,300	7,600	9,800	66.7
Roscommon	14,400	25,300	10,900	75.7	8,400	8,600	11,200	77.8
Saginaw	226,400	238,700	12,300	5.4	89,900	59,200	-18,400	-8.1
Sanilac	38,900	56,700	17,800	45.8	18,200	14,600	14,200	36.5
Tuscola	53,300	81,100	27,800	52.2	30,100	14,600	12,300	23.1
Region 8	699,000	898,000	199,000	28.5	331,000	196,000	62,000	8.9
Allegan	71,100	102,500	31,400	44.2	34,000	21,800	19,200	27.0
Ionia	47,500	60,700	13,200	27.8	21,300	12,600	4,500	9.5
Kent	424,000	492,000	68,000	16.0	184,300	105,000	-11,300	-2.7
Lake	6,700	14,900	8,200	122.4	8,700	3,600	3,100	46.3
Mason	24,600	34,700	10,100	41.1	13,700	9,400	5,700	23.2
Mecosta	33,800	58,400	24,600	72.8	22,200	9,700	12,100	35.8
Montcalm	43,600	63,700	20,100	46.1	22,500	14,900	12,500	28.7
Newaygo	31,000	45,900	14,900	48.1	15,400	11,800	11,300	36.5
Osceola	17,100	24,800	7,700	45.0	9,400	7,100	5,400	31.6
Region 9	109,000	170,000	61,000	56.0	58,000	44,000	47,000	43.1
Alcona	8,500	11,700	3,200	37.6	4,400	4,200	3,000	35.3
Alpena	32,900	46,500	13,600	41.3	15,000	9,300	7,900	24.0
Cheboygan	19,400	25,700	6,300	32.5	7,300	6,900	6,000	30.9
Crawford	8,200	15,800	7,600	92.7	4,400	4,400	7,600	92.7
Montmorency	6,900	12,500	5,600	81.2	3,900	4,000	5,800	84.1
Oscoda	6,100	9,800	3,700	60.7	2,800	3,700	4,600	75.4
Otsego	13,400	29,500	16,100	120.1	13,700	5,800	8,100	60.4
Presque Isle	13,900	18,900	5,000	36.0	6,400	5,700	4,300	30.9
Region 10	183,000	290,000	107,000	58.5	99,000	75,000	83,000	45.4
Antrim	15,400	25,400	10,000	64.9	8,700	7,100	8,400	54.5
Benzie	9,900	15,500	5,600	56.6	5,300	4,700	5,000	50.5

TABLE I-27. PROJECTED COMPONENTS OF POPULATION CHANGE FOR MICHIGAN COUNTIES: 1975-2000 (cont.)

County	1 April 1975	1 April 2000	Change, 1975-2000 Number	Change, 1975-2000 Percent	Components of change 1975-2000 Births	Components of change 1975-2000 Deaths	Net migration Number	Net migration Percent
Region 10 (cont.)								
Charlevoix	18,500	28,500	10,000	54.1	9,700	6,700	7,000	37.8
Emmet	21,200	30,500	9,300	43.9	9,600	9,000	8,800	41.5
Grand Traverse	45,100	74,100	29,000	64.3	25,900	17,200	20,400	45.2
Kalkaska	8,200	20,600	12,400	151.2	8,100	3,600	7,900	96.3
Leelanau	12,400	19,400	7,000	56.5	6,200	5,600	6,500	52.4
Manistee	21,500	27,300	5,800	27.0	9,000	9,900	6,800	31.6
Missaukee	8,700	14,500	5,800	66.7	4,900	4,100	5,100	58.6
Wexford	21,800	34,400	12,600	57.8	12,300	7,100	7,400	33.9
Region 11	54,000	57,000	3,000	5.6	21,000	18,000	1,000	1.9
Chippewa	36,000	33,800	-2,200	-6.1	12,700	10,200	-4,600	-12.8
Luce	7,100	9,900	2,800	39.4	4,300	3,300	1,800	25.4
Mackinac	10,600	13,100	2,500	23.6	4,100	4,900	3,300	31.1
Region 12	176,000	227,000	51,000	29.0	78,000	66,000	39,000	22.2
Alger	9,000	12,100	3,100	34.4	3,900	5,600	4,700	52.2
Delta	38,900	48,700	9,800	25.2	13,100	16,900	13,600	35.0
Dickinson	24,800	31,100	6,300	25.4	8,400	12,700	10,500	42.3
Marquette	69,600	92,300	22,700	32.6	38,900	16,900	700	1.0
Menominee	25,300	31,600	6,300	24.9	9,600	10,200	6,900	27.3
Schoolcraft	8,600	11,000	2,400	27.9	4,300	3,900	2,100	24.4
Region 13	93,000	116,000	23,000	24.7	39,000	40,000	24,000	25.8
Baraga	8,100	11,300	3,200	39.5	4,300	3,800	2,800	34.6
Gogebic	20,700	20,300	- 400	-1.9	5,700	10,600	4,600	22.2
Houghton	36,900	48,300	11,400	30.9	18,800	12,700	5,400	14.6
Iron	14,100	16,500	2,400	17.0	4,200	7,000	5,200	36.9
Keweenaw	2,200	2,900	700	31.8	1,000	1,000	700	31.8
Ontonagon	11,200	16,500	5,300	47.3	5,000	5,000	5,300	47.3
Region 14	318,000	393,000	75,000	23.6	132,000	99,000	42,000	13.2
Muskegon	157,400	150,700	-6,700	-4.3	57,800	49,800	-14,600	-9.3
Oceana	20,500	32,300	11,800	57.6	10,200	8,200	9,800	47.8
Ottawa	140,400	210,100	69,700	49.6	63,700	41,200	47,200	33.6
MICHIGAN	9,110,000	10,505,000	1,395,000	15.3	3,689,000	2,724,000	429,000	4.7

SOURCE: Michigan Department of Management and Budget, Population Projections for Michigan to the Year 2000 (Lansing: Information Systems Division, Office of the Budget, 1978), Table 2.
NOTE: Totals have been rounded.

TABLE II-2. CHARACTERISTICS OF THE HOUSING INVENTORY, DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND UNITED STATES: 1974

Characteristic	Detroit SMSA			United States				
				Inside SMSAs				
	In central city	Outside central city	Total	In central city	Outside central cities	Total	Outside SMSAs	Total
Year-round units (percent)								
In 1-unit structures	62.2	80.5	74.0	51.0	71.9	62.2	79.1	67.6
In 5-or-more unit structures	17.7	11.5	13.7	27.4	13.7	20.1	4.5	15.1
In structures built in 1970 or later	1.2	13.5	9.1	8.6	16.3	12.7	13.7	13.0
Lacking some or all plumbing facilities	2.2	0.5	1.1	2.2	1.8	2.0	8.3	4.0
Median number of rooms, year-round units	5.2	5.3	5.3	4.7	5.3	5.0	5.1	5.0
Total number of year-round units (thousands)	507.7	915.1	1,422.9	24,009.0	27,636.0	51,645.0	24,241.0	75,886.0
Percentage of occupied units with Negro head	47.4	3.7	18.9	19.7	4.6	11.6	7.3	10.3
Percentage of occupied units with Spanish-origin head	1.0	0.7	0.8	6.7	3.4	4.9	2.0	4.0
Increase in total housing inventory, 1970-1974 (percentage)	-4.0	15.6	7.7	6.5	18.2	12.5	14.1	13.0
Total number of units, 1974 (thousands)	507.7	916.6	1,424.3	24,081.0	27,985.0	52,066.0	25,535.0	77,601.0

SOURCE: Bureau of the Census, Current Housing Reports, Annual Housing Survey: 1974, Supplementary Reports, No. 1 (Washington, D.C.: 1977), Table I.

TABLE II-3. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1950, 1960, 1970, AND 1975

County	Occupied in				1970 Occupied by	
	1950	1960	1970	1975	Owner	Renter
Alcona	1,733	1,939	2,394	2,724	2,143	251
Alger	2,755	2,623	2,595	2,724	2,049	546
Allegan	13,949	16,363	19,494	22,151	16,073	3,421
Alpena	6,117	7,944	8,771	9,598	7,261	1,510
Antrim	3,120	3,109	3,928	4,660	3,391	537
Arenac	2,750	2,928	3,407	3,758	2,938	469
Baraga	2,264	2,060	2,327	2,895	1,885	487
Barry	7,904	9,439	11,480	13,326	9,736	1,744
Bay	24,809	30,062	34,571	37,640	28,101	6,470
Benzie	2,382	2,413	2,796	3,173	2,336	460
Berrien	34,577	44,412	50,758	54,778	37,301	13,457
Branch	8,829	9,852	11,208	12,685	8,794	2,414
Calhoun	34,510	41,010	44,422	46,537	34,215	10,207
Cass	8,642	10,774	13,357	15,405	10,912	2,445
Charlevoix	3,996	3,989	5,002	5,904	4,118	884
Cheboygan	3,859	4,122	4,944	5,746	4,090	854
Chippewa	7,994	8,956	9,296	9,804	5,832	3,464
Clare	2,948	3,485	5,345	6,918	4,620	725
Clinton	8,700	10,328	13,605	15,939	11,579	2,026
Crawford	1,225	1,436	1,976	2,327	1,604	372
Delta	9,359	9,914	10,816	11,825	8,445	2,371
Dickinson	7,566	7,488	7,855	8,359	6,587	1,268
Eaton	11,891	14,181	19,878	24,339	15,971	3,907
Emmet	4,800	4,696	5,499	6,399	4,330	1,169
Genesee	78,286	105,188	129,747	142,833	100,489	29,258
Gladwin	2,653	3,105	4,211	5,074	3,743	468
Gogebic	8,076	7,820	7,129	7,109	5,681	1,448
Grand Traverse	7,468	9,065	11,429	13,756	8,937	2,492
Gratiot	9,626	10,532	11,332	12,280	8,867	2,465
Hillsdale	9,658	10,276	11,408	12,398	9,112	2,296
Houghton	11,837	10,825	11,062	11,510	8,181	2,881
Huron	9,047	9,522	10,325	11,231	8,550	1,775
Ingham	49,613	60,608	77,042	85,026	49,585	27,457
Ionia	10,582	11,506	12,809	14,161	10,349	2,460
Iosco	3,349	4,859	7,327	9,520	4,756	2,571
Iron	5,305	5,334	4,930	4,871	4,082	848
Isabella	7,550	8,777	11,190	13,472	7,778	3,412
Jackson	30,814	37,520	42,261	47,627	33,361	8,900
Kalamazoo	36,664	48,139	59,406	67,565	42,466	16,940
Kalkaska	1,338	1,346	1,745	2,054	1,507	238
Kent	85,430	105,765	123,826	136,108	93,646	30,180
Keweenaw	921	805	786	751	644	142
Lake	1,738	1,807	1,981	2,189	1,713	268
Lapeer	8,911	10,771	13,835	17,189	11,150	2,685

TABLE II-3. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1950, 1960, 1970, AND 1975 (cont.)

County	Occupied in				1970 Occupied by	
	1950	1960	1970	1975	Owner	Renter
Leelanau	2,380	2,664	3,326	3,805	2,757	569
Lenawee	18,735	21,982	24,239	26,903	18,891	5,348
Livingston	7,744	10,770	16,886	22,056	13,736	3,150
Luce	1,638	1,662	1,746	2,245	1,426	320
Mackinac	2,593	2,920	2,943	3,012	2,345	598
Macomb	49,465	106,995	171,578	228,798	142,601	28,977
Manistee	5,668	5,876	6,471	7,018	5,294	1,177
Marquette	13,328	15,586	18,184	21,355	11,897	6,287
Mason	6,219	6,767	7,275	7,747	5,902	1,373
Mecosta	5,368	5,739	7,791	9,001	5,519	2,272
Menominee	7,049	7,159	7,646	8,134	6,310	1,336
Midland	9,668	13,612	18,013	21,113	14,749	3,264
Missaukee	2,030	1,916	2,216	2,488	1,934	282
Monroe	20,899	27,573	33,202	38,280	26,342	6,860
Montcalm	9,474	10,866	12,395	13,523	10,206	2,189
Montmorency	1,182	1,370	1,782	2,110	1,548	234
Muskegon	34,963	42,426	47,031	50,046	37,035	9,996
Newaygo	6,227	7,054	8,446	9,670	7,170	1,276
Oakland	109,239	188,986	264,566	328,221	207,135	57,431
Oceana	4,696	4,828	5,439	6,012	4,508	931
Ogemaw	2,670	2,883	3,846	4,465	3,204	642
Ontonagon	2,985	3,138	3,230	3,464	2,670	560
Osceola	3,889	3,992	4,602	4,937	3,840	762
Oscoda	909	1,061	1,596	2,102	1,394	202
Otsego	1,707	2,131	3,025	3,692	2,555	470
Ottawa	21,152	27,386	35,934	43,256	29,781	6,153
Presque Isle	3,114	3,476	3,833	4,054	3,326	507
Roscommon	1,918	2,396	3,587	4,363	3,081	506
Saginaw	42,913	52,870	63,143	70,398	49,095	14,048
St. Clair	26,508	31,268	36,416	40,206	28,875	7,541
St. Joseph	10,742	13,013	15,201	16,529	12,046	3,155
Sanilac	8,940	9,458	10,551	11,684	8,776	1,775
Schoolcraft	2,548	2,577	2,565	2,668	2,067	498
Shiawassee	13,513	15,432	18,581	20,500	15,042	3,539
Tuscola	10,561	11,903	13,709	15,458	11,446	2,263
Van Buren	12,431	14,657	17,262	19,429	13,392	3,870
Washtenaw	34,502	47,272	68,578	79,372	39,189	29,389
Wayne	670,128	784,668	830,441	873,465	563,531	266,910
Wexford	5,444	5,545	6,234	6,707	5,025	1,209

SOURCES: Michigan State Housing Development Authority, Estimates of Physically Inadequate and Dilapidated Housing Units in Michigan, 1975 (Lansing: 1975), pp. 105-270; Bureau of the Census, U.S. Census of Housing: 1970, General Housing Characteristics, Michigan (Washington, D.C.: 1971), Final Report HC(1)-A24, Table 29; Bureau of the Census, U.S. Census of Housing: 1960, vol. 1, State and Small Areas, Michigan (Washington, D.C.: 1962), Final Report HC(1)-24, Table 28; and Bureau of the Census, U.S. Census of Housing: 1950, vol. 1, General Characteristics, chapter 22, "Michigan" (Washington, D.C.: 1952), Table 26.

TABLE II-4. TOTAL HOUSING UNITS IN MICHIGAN COUNTIES: 1970 AND 1975

County	1970				1975	
	Seasonal and migratory	Year-round housing units		Total housing units	Year-round housing units	
		Vacant	Total		Vacant	Total
Alcona	2,677	1,196	3,590	6,267	1,675	4,399
Alger	467	844	3,439	3,906	679	3,403
Allegan	2,377	1,808	21,302	23,679	2,087	24,238
Alpena	571	1,126	9,897	10,468	1,007	10,605
Antrim	1,343	2,109	6,037	7,380	3,492	8,152
Arenac	1,427	506	3,913	5,340	673	4,731
Baraga	212	528	2,900	3,112	195	3,090
Barry	1,627	1,626	13,106	14,733	1,033	14,359
Bay	517	1,490	36,061	36,578	1,351	38,991
Benzie	2,152	921	3,717	5,869	1,438	4,611
Berrien	4,553	4,336	55,094	59,647	6,308	61,086
Branch	1,204	1,453	12,661	13,865	818	13,503
Calhoun	357	2,060	46,482	46,839	2,600	49,137
Cass	1,674	2,245	15,602	17,276	2,193	17,598
Charlevoix	1,346	1,269	6,271	7,617	2,934	8,838
Cheboygan	2,898	1,082	6,026	8,924	1,784	7,530
Chippewa	2,103	1,672	10,968	13,071	1,210	11,014
Clare	1,741	5,716	11,061	12,802	5,425	12,343
Clinton	20	475	14,080	14,100	1,007	16,946
Crawford	1,682	352	2,328	4,010	1,619	3,946
Delta	867	1,502	12,318	13,185	684	12,509
Dickinson	778	784	8,639	9,417	1,277	9,636
Eaton	157	805	20,683	20,840	3,220	27,559
Emmet	2,026	1,379	6,878	8,904	789	7,188
Genesee	541	5,382	135,129	135,670	6,318	149,151
Gladwin	1,722	2,922	7,133	8,855	2,608	7,682
Gogebic	1,124	653	7,782	8,906	923	8,032
Grand Traverse	2,433	1,585	13,014	15,447	2,280	16,036
Gratiot	152	814	12,146	12,298	844	13,124
Hillsdale	683	1,397	12,805	13,488	356	12,754
Houghton	1,456	1,563	12,625	14,081	1,093	12,603
Huron	2,668	1,654	11,979	14,647	1,407	12,638
Ingham	109	3,985	81,023	81,132	4,776	89,802
Ionia	350	1,048	13,857	14,207	544	14,705
Iosco	3,196	3,414	10,741	13,937	3,086	12,606
Iron	781	1,163	6,093	6,874	1,077	5,948
Isabella	298	959	12,149	12,447	815	14,287
Jackson	944	1,804	44,065	45,009	1,878	49,505
Kalamazoo	467	2,656	62,062	62,529	5,418	72,983
Kalkaska	458	831	2,576	3,034	1,285	3,339

TABLE II-4. TOTAL HOUSING UNITS IN MICHIGAN COUNTIES: 1970 AND 1975 (cont.)

County	1970				1975	
	Seasonal and migratory	Year-round housing units		Total housing units	Year-round housing units	
		Vacant	Total		Vacant	Total
Kent	1,378	6,602	130,428	131,806	10,526	146,634
Keweenaw	774	170	979	1,753	118	869
Lake	2,414	2,170	4,128	6,542	2,579	4,768
Lapeer	531	1,332	15,167	15,698	3,127	20,316
Leelanau	1,271	1,730	5,056	6,327	2,234	6,039
Lenawee	1,841	1,541	25,780	27,621	2,804	29,707
Livingston	2,024	1,681	18,567	20,591	6,212	28,268
Luce	493	264	2,010	2,503	144	2,389
Mackinac	1,831	1,237	4,180	6,011	1,244	4,256
Macomb	145	4,755	176,333	176,478	2,068	230,866
Manistee	1,516	1,359	7,830	9,346	1,304	8,322
Marquette	1,930	1,784	19,968	21,898	2,004	23,359
Mason	1,131	2,085	9,360	10,491	2,726	10,473
Mecosta	2,140	1,161	8,952	11,092	2,745	11,746
Menominee	349	1,263	8,909	9,258	847	8,981
Midland	225	1,515	19,528	19,753	1,011	22,124
Missaukee	943	593	2,809	3,752	335	2,283
Monroe	60	982	34,184	34,244	22	38,302
Montcalm	2,474	1,559	13,954	16,428	1,584	15,107
Montmorency	1,350	1,698	348	4,830	1,782	3,892
Muskegon	667	2,197	49,228	49,895	2,270	52,316
Newaygo	2,194	2,342	10,788	12,982	2,562	12,232
Oakland	1,975	9,110	273,676	275,651	9,901	338,122
Oceana	1,840	978	6,417	8,257	880	6,892
Ogemaw	1,509	3,907	7,753	9,262	3,893	8,358
Ontonagon	429	675	3,905	4,334	372	3,836
Osceola	1,158	1,006	5,608	6,756	492	5,429
Oscoda	1,895	1,523	3,119	5,014	1,038	3,140
Otsego	779	1,346	4,371	5,150	2,938	6,630
Ottawa	1,123	1,354	37,288	38,411	2,751	46,007
Presque Isle	1,257	616	449	5,706	420	4,474
Roscommon	5,665	3,958	7,545	13,210	5,187	9,550
Saginaw	179	2,495	65,638	65,817	2,375	72,773
St. Clair	879	4,258	40,674	41,553	5,068	45,274
St. Joseph	1,401	1,214	16,415	17,816	1,485	18,014
Sanilac	2,366	1,924	12,475	14,841	1,869	13,553
Schoolcraft	633	666	3,231	3,864	493	3,161
Shiawassee	38	782	19,363	19,401	1,403	21,903
Tuscola	323	1,491	15,200	15,523	2,627	18,085
Van Buren	4,039	2,602	19,864	23,903	1,563	20,992

TABLE II-4. TOTAL HOUSING UNITS IN MICHIGAN COUNTIES: 1970 AND 1975 (cont.)

County	1970				1975	
	Seasonal and migratory	Year-round housing units		Total housing units	Year-round housing units	
		Vacant	Total		Vacant	Total
Washtenaw	925	2,843	71,421	72,346	9,944	89,316
Wayne	247	39,404	869,845	870,092	29,839	903,304
Wexford	504	1,107	7,341	7,845	1,570	8,277
TOTAL	108,967	316,191	2,845,484	2,954,451	220,197	3,204,281

SOURCES: Michigan State Housing Development Authority, Estimates of Physically Inadequate and Dilapidated Housing Units in Michigan, 1975 (Lansing: 1975), pp. 105-270; and Bureau of the Census, U.S. Census of Housing: 1970, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), Final Report HC(1)-B24, Table 60.

TABLE II-5. YEAR HOUSING UNITS WERE BUILT IN MICHIGAN, BY COUNTY: UNITS EXISTING ON 1 APRIL 1970

County	1949 or earlier	1950 to 1959	1960 to 1964	1965 to 1968	1969 to March 1970
Alcona	1,679	857	436	410	208
Alger	2,405	488	191	223	96
Allegan	13,411	3,331	1,715	1,944	901
Alpena	5,587	2,069	980	885	376
Antrim	3,425	917	640	791	264
Arenac	2,443	533	319	431	187
Baraga	2,015	316	240	238	91
Barry	8,167	2,211	1,180	1,192	356
Bay	22,049	6,746	2,757	3,042	1,467
Benzie	2,493	592	216	289	127
Berrien	31,728	10,753	5,843	4,910	1,860
Branch	8,618	1,608	1,026	1,146	263
Calhoun	28,887	9,813	3,963	2,943	876
Cass	9,080	3,015	1,482	1,564	461
Charlevoix	4,090	711	476	718	276
Cheboygan	3,577	970	550	669	260
Chippewa	6,520	1,937	1,771	582	158
Clare	3,703	2,526	2,768	1,643	421
Clinton	8,282	1,975	1,283	1,048	492
Crawford	1,026	449	395	338	120
Delta	8,594	1,744	999	614	367
Dickinson	6,907	809	437	374	112
Eaton	11,279	2,960	2,166	3,218	1,060
Emmet	4,579	910	547	552	290
Genesee	65,147	35,150	14,425	15,985	4,422
Gladwin	3,011	1,469	1,108	1,198	347
Gogebic	6,601	603	167	174	237
Grand Traverse	7,089	2,641	1,154	1,470	660
Gratiot	8,752	1,356	783	939	316
Hillsdale	9,220	1,215	941	1,055	374
Houghton	10,549	684	394	646	352
Huron	8,257	1,920	821	700	281
Ingham	40,725	17,206	8,491	11,272	3,329
Ionia	10,192	1,463	727	1,089	386
Iosco	4,005	2,986	2,238	1,093	419

TABLE II-5. YEAR HOUSING UNITS WERE BUILT IN MICHIGAN, BY COUNTY: UNITS EXISTING ON 1 APRIL 1970 (cont.)

County	1949 or earlier	1950 to 1959	1960 to 1964	1965 to 1968	1969 to March 1970
Iron	4,799	797	262	152	83
Isabella	6,854	1,738	946	1,657	954
Jackson	28,083	7,568	3,616	3,500	1,298
Kalamazoo	32,903	13,600	6,771	7,119	1,669
Kalkaska	1,232	533	398	294	119
Kent	74,648	27,039	12,758	11,693	4,290
Keweenaw	865	53	27	34	0
Lake	1,795	1,043	641	487	162
Lapeer	9,042	2,439	1,296	1,745	645
Leelanau	2,782	828	703	491	252
Lenawee	17,429	4,504	1,531	1,786	530
Livingston	8,836	3,806	1,900	2,950	1,075
Luce	1,352	299	171	138	50
Mackinac	2,566	909	391	222	92
Macomb	43,845	60,527	30,951	30,912	10,098
Manistee	5,363	1,069	639	609	150
Marquette	12,228	3,055	2,675	1,385	625
Mason	6,331	1,271	716	753	289
Mecosta	5,140	1,108	922	1,176	606
Menominee	6,431	1,406	422	491	159
Midland	7,779	5,210	2,186	3,276	1,077
Missaukee	1,884	405	153	292	75
Monroe	19,774	7,869	3,569	2,250	722
Montcalm	9,208	2,034	1,083	1,280	349
Montmorency	1,657	997	404	310	112
Muskegon	30,044	10,516	4,113	3,348	1,207
Newaygo	6,170	1,887	1,173	1,151	407
Oakland	99,934	86,985	31,571	42,751	12,435
Oceana	4,387	757	496	595	182
Ogemaw	3,431	1,852	1,182	936	352
Ontonagon	2,686	628	281	257	53
Osceola	3,955	633	329	488	203
Oscoda	1,425	699	449	428	118
Otsego	1,830	1,050	563	738	190
Ottawa	19,275	7,948	4,412	4,342	1,311

TABLE II-5. YEAR HOUSING UNITS WERE BUILT IN MICHIGAN, BY COUNTY: UNITS EXISTING ON 1 APRIL 1970 (cont.)

County	1949 or earlier	1950 to 1959	1960 to 1964	1965 to 1968	1969 to March 1970
Presque Isle	2,696	819	423	365	146
Roscommon	2,422	1,824	1,743	1,214	342
Saginaw	36,903	12,760	6,830	7,124	2,021
St. Clair	26,626	7,013	2,674	3,121	1,240
St. Joseph	10,806	2,683	1,160	1,273	493
Sanilac	8,728	1,594	802	944	407
Schoolcraft	2,305	496	196	106	128
Shiawassee	12,564	2,866	1,411	1,778	744
Tuscola	10,014	2,023	1,180	1,457	526
Van Buren	12,894	3,172	1,513	1,709	576
Washtenaw	29,276	15,392	10,283	12,616	3,854
Wayne	588,091	183,600	45,080	39,439	13,635
Wexford	4,944	863	646	541	347
TOTAL	1,608,360	623,100	257,270	268,108	88,610

SOURCE: Bureau of the Census, U.S. Census of Housing. 1970, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), Final Report HC(1)-B24, Table 62.

TABLE II-6. SOURCE OF WATER AND DISPOSITION OF SEWAGE, OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1970

County	Source of water			Sewage disposal		
	Public or private co.	Ind. well	Other	Public sewer	Septic tank or cesspool	Other
Alcona	188	3,273	85	27	3,042	477
Alger	1,452	1,810	191	1,222	1,715	516
Allegan	6,578	14,607	99	4,945	15,750	589
Alpena	4,877	4,924	94	4,445	5,036	414
Antrim	1,962	3,943	134	440	5,130	469
Arenac	905	2,953	72	466	3,006	458
Baraga	1,359	1,280	275	1,252	1,280	382
Barry	3,657	9,428	12	3,410	9,283	404
Bay	29,323	6,552	193	22,731	12,685	652
Benzie	1,358	2,208	116	969	2,439	274
Berrien	25,861	28,979	244	25,282	28,665	1,137
Branch	5,442	7,110	94	4,653	7,439	554
Calhoun	28,663	17,698	141	22,467	23,525	510
Cass	3,641	11,834	97	2,909	12,124	539
Charlevoix	3,270	2,908	89	2,473	3,567	227
Cheboygan	2,059	3,849	161	1,670	4,026	373
Chippewa	6,849	3,846	247	6,280	3,891	771
Clare	1,969	8,897	221	1,050	7,093	2,944
Clinton	4,463	9,598	17	3,771	9,916	391
Crawford	681	1,667	8	695	1,566	95
Delta	6,909	5,197	250	6,503	4,968	885
Dickinson	7,078	1,443	135	5,847	2,320	489
Eaton	10,923	9,689	60	9,714	10,540	418
Emmet	3,121	3,543	170	2,693	3,763	378
Genesee	86,793	48,165	189	83,971	50,267	909
Gladwin	1,571	5,257	285	792	5,054	1,267
Gogebic	6,812	859	106	6,257	987	533
Grand Traverse	6,456	6,528	40	5,760	6,985	279
Gratiot	5,773	6,326	42	4,883	6,984	274
Hillsdale	4,666	8,022	95	3,203	9,029	551
Houghton	9,858	2,431	349	8,265	3,702	671
Huron	4,967	6,937	109	2,264	9,098	651
Ingham	66,484	14,490	50	70,221	10,383	420
Ionia	6,693	7,003	166	5,826	7,683	353
Iosco	3,446	7,184	137	2,850	7,222	695

TABLE II-6. SOURCE OF WATER AND DISPOSITION OF SEWAGE, OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1970 (cont.)

County	Source of water			Sewage disposal		
	Public or private co.	Ind. well	Other	Public sewer	Septic tank or cesspool	Other
Iron	5,231	579	303	3,463	2,140	510
Isabella	5,433	6,603	117	5,340	6,275	538
Jackson	20,913	22,995	127	16,575	26,895	565
Kalamazoo	41,365	20,618	76	28,118	33,386	555
Kalkaska	442	2,107	45	441	1,876	277
Kent	99 048	31,170	204	90,810	38,973	639
Keweenaw	783	96	81	333	567	60
Lake	238	3,757	77	37	3,295	740
Lapeer	4,061	10,981	123	3,589	11,053	523
Leelanau	915	3,991	134	246	4,561	233
Lenawee	13,213	12,428	121	11,974	12,888	900
Livingston	4,336	14,169	39	3,740	14,499	305
Luce	1,106	848	58	991	791	230
Mackinac	1,486	2,373	333	938	2,555	699
Macomb	159,486	16,690	154	149,271	26,481	578
Manistee	3,624	4,088	128	2,888	4,474	478
Marquette	14,707	4,788	481	13,488	5,687	801
Mason	4,167	5,145	47	3,977	4,931	451
Mecosta	2,955	5,894	83	3,011	5,365	556
Menominee	4,220	4,583	90	4,016	3,797	1,080
Midland	11,343	8,057	130	10,740	8,304	486
Missaukee	542	2,198	51	33	2,323	435
Monroe	15,059	18,393	704	10,041	22,791	1,324
Montcalm	5,013	8,909	67	4,377	9,153	459
Montmorency	194	3,165	113	198	2,687	587
Muskegon	31,097	18,043	84	26,245	22,701	278
Newaygo	2,475	8,184	172	2,269	7,666	896
Oakland	210,727	62,299	628	193,674	78,813	1,167
Oceana	2,056	4,262	41	1,274	4,722	363
Ogemaw	824	6,695	192	798	5,526	1,387
Ontonagon	2,103	1,531	271	1,384	1,937	584
Osceola	1,914	3,634	36	1,519	3,585	480
Oscoda	21	2,935	143	6	2,396	697
Otsego	1,194	3,074	100	1,051	3,038	279
Ottawa	15,737	21,382	139	12,888	24,057	313

TABLE II-6. SOURCE OF WATER AND DISPOSITION OF SEWAGE, OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1970 (cont.)

County	Source of water			Sewage disposal		
	Public or private co.	Ind. well	Other	Public sewer	Septic tank or cesspool	Other
Presque Isle	1,823	2,568	83	1,399	2,762	313
Roscommon	592	6,796	110	444	6,521	533
Saginaw	51,570	13,716	374	45,804	18,984	872
St. Clair	27,041	12,205	1,403	21,225	18,061	1,363
St. Joseph	8,588	7,774	13	6,716	9,312	347
Sanilac	4,068	8,299	124	3,045	8,889	557
Schoolcraft	1,633	1,443	178	1,409	1,419	426
Shiawassee	9,212	10,069	90	8,207	10,769	395
Tuscola	4,727	10,113	356	4,240	10,201	755
Van Buren	7,588	12,247	47	6,422	12,866	594
Washtenaw	57,716	13,585	110	57,239	13,610	562
Wayne	861,758	7,718	310	848,004	19,754	2,028
Wexford	3,602	3,610	118	3,034	3,934	362
TOTAL	2,094,053	737,245	13,781	1,947,137	847,433	50,509

SOURCE: Bureau of the Census, U.S. Census of Housing: 1970, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), Final Report HC(1)-B24, Table 62.

TABLE II-7. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN WITH SELECTED APPLIANCES, BY COUNTY: CENSUS 1970

County	Clothes washing machine	Clothes dryer	Dish-washer	Home food freezer	Tele-vision	Total occupied units
Alcona	1,738	1,022	229	1,274	2,096	2,207
Alger	2,338	1,333	200	1,070	2,646	2,728
Allegan	14,555	10,627	2,324	9,543	18,942	19,548
Alpena	7,353	5,298	813	4,432	8,480	8,771
Antrim	2,898	1,946	623	1,962	3,730	3,935
Arenac	2,575	1,676	157	1,860	3,467	3,553
Baraga	1,807	922	144	646	2,129	2,219
Barry	8,845	6,394	1,433	6,435	1,181	11,480
Bay	28,276	21,767	3,884	12,091	34,011	34,571
Benzie	2,112	1,407	215	1,283	1,492	2,735
Berrien	37,286	27,976	9,618	20,161	48,880	50,819
Branch	7,692	5,546	1,585	5,633	10,709	11,208
Calhoun	31,505	23,409	6,222	16,050	43,503	44,422
Cass	9,134	6,693	1,822	6,401	12,961	13,357
Charlevoix	3,625	2,419	559	2,424	4,869	4,954
Cheboygan	3,750	2,628	497	2,245	4,818	4,992
Chippewa	6,468	5,570	1,126	3,176	8,959	9,296
Clare	3,925	2,853	390	2,506	5,080	5,188
Clinton	10,715	8,689	2,819	6,945	13,298	13,762
Crawford	1,433	978	223	593	1,824	1,904
Delta	9,262	6,125	1,162	3,614	10,644	10,888
Dickinson	7,089	4,110	982	1,921	7,707	7,962
Eaton	15,362	12,478	4,879	8,568	19,317	19,771
Emmet	3,911	2,884	693	2,485	5,282	5,539
Genesee	103,406	77,109	20,051	41,587	126,473	129,707
Gladwin	3,111	2,312	396	2,327	3,997	4,107
Gogebic	6,198	3,199	456	1,866	6,779	7,233
Grand Traverse	8,468	6,544	2,168	4,669	11,182	11,429
Gratiot	9,022	6,827	1,827	5,455	10,881	11,332
Hillsdale	8,306	6,226	1,369	5,767	10,822	11,408
Houghton	9,080	4,347	814	2,161	9,952	11,062
Huron	9,038	5,507	892	5,618	9,980	10,325
Ingham	52,158	42,604	16,310	21,158	74,041	77,042
Ionia	10,004	7,484	1,642	5,986	12,570	12,809
Iosco	5,894	4,629	761	2,864	7,114	7,256

TABLE II-7. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN WITH SELECTED APPLIANCES, BY COUNTY: CENSUS 1970 (cont.)

County	Clothes washing machine	Clothes dryer	Dish-washer	Home food freezer	Tele-vision	Total occupied units
Iron	4,204	2,142	325	1,668	4,730	5,001
Isabella	7,455	5,919	1,530	4,768	10,765	11,190
Jackson	28,880	21,345	6,405	14,979	41,142	42,261
Kalamazoo	42,138	32,871	10,798	19,786	57,783	59,406
Kalkaska	1,123	621	99	852	1,501	1,616
Kent	97,055	76,761	23,462	38,836	119,864	123,955
Keweenaw	763	271	21	85	783	834
Lake	1,102	785	186	888	1,699	1,752
Lapeer	11,062	8,564	2,190	6,185	13,600	14,016
Leelanau	2,643	1,985	518	1,961	3,292	3,353
Lenawee	17,846	13,755	2,997	11,391	23,630	24,212
Livingston	12,874	10,010	3,368	7,143	16,508	16,886
Luce	1,276	906	177	719	1,599	1,599
Mackinac	2,363	1,558	382	1,387	2,837	3,024
Macomb	151,311	128,870	42,238	40,839	169,260	171,644
Manistee	5,274	3,402	803	3,070	6,272	6,532
Marquette	14,746	9,582	2,411	3,776	17,591	18,123
Mason	5,873	4,259	972	3,180	7,085	7,367
Mecosta	5,240	3,879	828	3,289	7,412	7,699
Menominee	6,546	4,416	656	2,795	7,478	7,595
Midland	14,523	12,233	4,977	8,082	17,794	18,064
Missaukee	1,821	1,417	302	1,283	1,980	2,001
Monroe	25,627	19,837	3,793	12,892	32,629	33,417
Montcalm	9,064	6,611	1,411	6,080	11,864	12,395
Montmorency	1,264	982	128	905	1,457	1,511
Muskegon	38,817	30,056	6,420	16,864	46,058	47,302
Newaygo	6,253	4,220	899	4,251	8,135	8,446
Oakland	220,645	189,298	88,541	69,665	260,646	264,566
Oceana	4,525	3,194	565	3,040	5,218	5,534
Ogemaw	2,662	1,853	319	2,009	3,710	3,751
Ontonagon	2,922	1,606	251	1,256	3,015	3,314
Osceola	3,411	2,346	493	2,311	4,375	4,518
Oscoda	1,390	1,060	185	1,036	1,579	1,757
Otsego	2,109	1,709	436	1,380	2,686	2,785
Ottawa	30,059	24,673	6,599	16,154	34,731	36,013

TABLE II-7. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN WITH SELECTED APPLIANCES, BY COUNTY: CENSUS 1970 (cont.)

County	Clothes washing machine	Clothes dryer	Dish-washer	Home food freezer	Tele-vision	Total occupied units
Presque Isle	3,630	2,121	341	2,327	4,008	4,256
Roscommon	2,214	1,636	278	1,135	3,000	3,066
Saginaw	51,735	39,819	10,502	21,037	61,886	63,241
St. Clair	28,862	21,776	5,478	10,858	35,483	36,416
St. Joseph	10,483	7,673	2,347	6,703	14,412	15,201
Sanilac	8,798	6,113	1,244	5,255	10,152	10,551
Schoolcraft	2,026	1,537	142	958	2,247	2,426
Shiawassee	14,771	11,527	2,938	8,445	18,369	18,720
Tuscola	11,345	7,873	1,711	7,177	13,423	13,709
Van Buren	11,399	7,846	1,836	7,640	16,774	17,262
Washtenaw	45,346	37,323	17,830	18,756	65,141	68,578
Wayne	660,693	437,637	114,558	143,876	802,456	830,737
Wexford	4,522	3,074	742	2,752	5,839	5,938
TOTAL	2,090,041	1,550,489	464,917	774,500	2,574,714	2,653,059

SOURCE: Bureau of the Census, U.S. Census of Housing: 1970, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), Final Report HC(1)-B24, Table 63.

TABLE II-8. SELECTED CHARACTERISTICS OF FHA-INSURED HOMES UNDER SECTION 203 IN MICHIGAN AND THE UNITED STATES: 1973-1978

Year	New homes		Existing homes	
	Michigan	United States	Michigan	United States
	Median property value (dollars)			
1973	$25,545	$24,442	$17,488	$18,737
1974	28,835	27,603	18,983	22,123
1975	31,761	32,808	20,231	26,051
1976	32,324	35,278	21,439	27,011
1977	34,882	37,487	23,101	29,252
1978	39,636	41,863	22,871	33,425
	Average construction cost per square foot			
1973	$20.36	$16.61	--	
1974	22.17	18.68	--	--
1975	24.26	20.49	--	--
1976	25.92	21.69	--	--
1977	27.80	23.39	--	--
1978	30.69	25.95	--	--
	Average market price of site			
1973	$4,540	$5,051	$2,847	$3,949
1974	5,164	5,372	3,065	4,451
1975	5,664	6,329	3,257	5,423
1976	6,102	6,963	3,261	5,641
1977	6,169	7,279	3,438	5,878
1978	6,901	7,993	3,409	7,052
	Median improved living area (square feet)			
1973	1,022	1,171	900	1,064
1974	1,068	1,213	910	1,067
1975	1,059	1,309	919	1,118
1976	1,064	1,313	923	1,098
1977	1,043	1,294	934	1,097
1978	1,041	1,316	899	1,103
	Percentage with full basement			
1973	89.0	11.0	75.9	31.1
1974	84.3	15.3	73.3	32.9
1975	76.0	15.3	74.7	26.9
1976	73.3	11.8	71.8	23.2
1977	84.4	11.4	73.5	23.0
1978	91.9	11.8	71.9	23.4

SOURCE: Federal Housing Administration, FHA Homes, 1970 through 1978 (Washington, D.C.: annually), Tables 5S, 7S, 8S, 10S, and 14S (1978).

III. HEALTH AND VITAL STATISTICS

Michigan Health Statistics, published annually by the Michigan Center for Statistics of the Michigan Department of Public Health, is the major source of vital statistics presented herein. Births and deaths are estimated on the basis of registrations, which are not complete. In 1950, a test done in connection with the Census of Population revealed that registration of births in Michigan was 98.7 percent complete. The Center for Health Statistics believes that death registrations exceed birth registrations because of the requirement of a death certificate for the issuance of a burial permit. Delayed registrations of births and deaths cause negligible statistical aberrations.

Since 1950 the statistics on births and deaths have reflected interstate allocation. Births and deaths among nonresidents, but taking place in Michigan, are excluded from the Michigan data; births and deaths among Michigan residents taking place in other states or countries are included in the Michigan data. Allocation intrastate is on the basis of county of residence. An effort is made to determine the city of residence, but for a large number of births and deaths in each county it is impossible to determine this jurisdiction from the registration form. Live birth and death statistics for counties appear in Table III-15; some related statistics, used in determining net migration for counties, appear in Table I-7.

Revisions in the International List of Causes of Death affect the comparability of these data over time. The eighth revision has been the basis for cause of death classification in Michigan since 1968.

Annual information about registered hospitals is published in Hospitals, Journal of the American Hospital Association. Michigan Department of Public Health compilations exclude federal hospitals and hospitals licensed by the Michigan Department of Mental Health. The Department of Mental Health has jurisdiction over state hospitals for the mentally ill as well as state homes and training schools for the mentally retarded. Figures on health manpower in this state are compiled by the Michigan Health Council, East Lansing, from data provided by the Michigan Department of Licensing and Regulation.

Those with a special interest in the death rate from motor vehicle accidents should consult chapter XVII.

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TABLE III-1. LIVE BIRTHS AND DEATHS OF MICHIGAN AND U.S. RESIDENTS: 1910-1978

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1910	64,109	39,913	n.a.	805,412
1911	65,756	38,007	n.a.	839,284
1912	69,537	38,804	n.a.	838,251
1913	73,058	40,827	n.a.	890,848
1914	76,761	39,906	n.a.	898,059
1915	81,100	40,441	776,304[a]	909,155
1916	87,062	46,047	818,983	1,001,921
1917	89,419	47,236	1,353,792	1,068,932
1918	91,261	54,617	1,363,649	1,471,367
1919	84,062	45,636	1,373,438	1,096,436
1920	92,245	51,982	1,508,874	1,142,558
1921	96,035	44,186	1,714,261	1,032,009
1922	90,042	43,817	1,774,911	1,101,863
1923	92,956	49,333	1,792,646	1,193,017
1924	98,187	47,304	1,930,614	1,173,990
1925	98,983	49,417	1,878,880	1,219,019
1926	98,289	54,080	1,856,068	1,285,949
1927	99,940	50,600	2,137,836	1,236,949
1928	97,462	54,755	2,233,149	1,378,675
1929	98,695	56,117	2,169,920	1,386,363
1930	98,882	51,561	2,203,958	1,343,356
1931	90,547	49,068	2,112,760	1,322,587
1932	85,254	49,569	2,074,042	1,308,529
1933	80,482	48,507	2,081,232	1,342,106
1934	83,944	50,440	2,167,636	1,396,903
1935	87,403	51,051	2,155,105	1,392,752
1936	88,457	54,777	2,144,790	1,479,228
1937	91,566	53,468	2,203,337	1,450,427
1938	96,962	50,678	2,286,962	1,381,391
1939	94,432	52,017	2,265,588	1,387,897
1940	99,106	52,092	2,360,399	1,417,269
1941	107,498	52,671	2,513,427	1,397,642
1942	124,068	52,738	2,808,996	1,385,187
1943	125,441	56,774	2,934,860	1,459,544
1944	113,586	54,016	2,794,800	1,411,338
1945	111,557	53,641	2,735,456	1,401,719
1946	138,572	54,856	3,288,672	1,395,617
1947	160,275	56,807	3,699,940	1,445,370
1948	153,726	56,520	3,535,068	1,444,337
1949	156,469	57,107	3,559,529	1,443,607

TABLE III-1. LIVE BIRTHS AND DEATHS OF MICHIGAN AND U.S. RESIDENTS: 1910-1978 (cont.)

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1950	160,055	57,567	3,554,149	1,452,454
1951	172,451	59,181	3,750,850	1,482,099
1952	177,835	59,138	3,846,986	1,496,838
1953	182,968	62,087	3,902,120	1,517,541
1954	192,104	60,706	4,017,362	1,481,091
1955	196,294	63,087	4,047,295	1,528,717
1956	206,068	64,352	4,163,090	1,564,476
1957	208,488	66,435	4,254,784	1,633,128
1958	202,690	65,899	4,203,812	1,647,886
1959	198,301	66,812	4,244,796	1,656,814
1960	195,056	67,912	4,257,850	1,711,982
1961	192,825	67,375	4,268,326	1,701,522
1962	182,790	70,049	4,167,362	1,756,720
1963	178,871	72,438	4,098,020	1,813,549
1964	175,103	72,129	4,027,490	1,798,051
1965	166,464	73,665	3,760,358	1,828,136
1966	165,794	74,596	3,606,274	1,863,149
1967	162,756	75,360	3,520,959	1,851,323
1968	159,058	76,855	3,501,564	1,930,082
1969	165,760	76,693	3,600,206	1,921,990
1970	171,667	76,321	3,731,386	1,921,031
1971	162,244	77,395	3,555,970	1,927,542
1972	146,854	79,210	3,258,411	1,963,944
1973	141,550	78,522	3,136,965	1,973,003
1974	137,414	76,143	3,159,958	1,934,388
1975	133,931	74,522	3,144,198	1,892,879
1976	131,378	75,801	3,167,788	1,909,440
1977	138,416	74,144	3,326,632	1,898,000[p]
1978	137,815[p]	74,654[p]	3,329,000[p]	1,924,000[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), and special release; and National Center for Health Statistics, Vital Statistics of the United States (Washington, D.C.: 1964) and Monthly Vital Statistics Report (Washington, D.C.: monthly).

a: Increased in number from 16 States and the District of Columbia in 1915 to the entire conterminous U.S. in 1951.

p: provisional

TABLE III-2. LIVE BIRTH AND DEATH RATES PER 1,000 POPULATION OF MICHIGAN AND U.S. RESIDENTS: 1910-1978

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1910	22.8	14.2	n.a.	15.0
1911	22.7	13.1	n.a.	14.2
1912	23.3	13.0	n.a.	13.9
1913	23.8	13.3	n.a.	14.1
1914	24.3	12.7	n.a.	13.6
1915	25.0	12.5	25.0	13.6
1916	26.2	13.8	24.9	14.0
1917	26.2	13.8	24.5	14.3
1918	26.1	15.6	24.7	18.1
1919	23.5	12.7	22.4	12.9
1920	25.1	14.2	23.7	13.0
1921	25.4	11.7	24.2	11.6
1922	23.1	11.2	22.3	11.7
1923	23.1	12.3	22.1	12.2
1924	23.7	11.4	22.2	11.7
1925	23.3	11.6	21.3	11.8
1926	22.5	12.4	20.5	12.3
1927	22.3	11.3	20.5	11.4
1928	21.2	11.9	19.7	12.1
1929	20.9	11.9	18.8	11.9
1930	20.4	10.6	18.9	11.3
1931	18.5	10.1	18.0	11.1
1932	17.3	10.1	17.4	10.9
1933	16.2	9.8	16.6	10.7
1934	16.8	10.1	17.2	11.1
1935	17.3	10.1	16.9	10.9
1936	17.4	10.8	16.7	11.6
1937	17.8	10.4	17.1	11.3
1938	18.7	9.8	17.6	10.6
1939	18.1	10.0	17.3	10.6
1940	18.9	9.9	17.9	10.8
1941	19.8	9.7	18.8	10.5
1942	22.4	9.5	20.8	10.3
1943	23.3	10.6	21.5	10.9
1944	21.1	10.0	20.2	10.6
1945	20.5	9.9	19.5	10.6
1946	24.3	9.6	23.3	10.0
1947	26.4	9.4	25.8	10.1
1948	24.8	9.1	24.2	9.9
1949	24.6	9.0	23.9	9.7

TABLE III-2. LIVE BIRTH AND DEATH RATES PER 1,000 POPULATION OF MICHIGAN AND U.S. RESIDENTS: 1910-1978 (cont.)

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1950	25.1	9.0	23.6	9.6
1951	26.3	9.0	24.5	9.7
1952	26.5	8.8	24.7	9.6
1953	26.7	9.1	24.7	9.6
1954	27.3	8.6	24.9	9.2
1955	27.1	8.7	24.6	9.3
1956	27.4	8.6	24.9	9.4
1957	26.7	8.5	25.0	9.6
1958	25.8	8.4	24.3	9.5
1959	24.9	8.4	24.0	9.4
1960	24.9	8.7	23.7	9.5
1961	24.4	8.5	23.3	9.3
1962	23.0	8.8	22.4	9.5
1963	22.3	9.0	21.7	9.6
1964	21.6	8.9	21.0	9.4
1965	20.3	9.0	19.4	9.4
1966	19.9	9.0	18.4	9.5
1967	18.9	8.7	17.8	9.4
1968	18.3	8.9	17.5	9.7
1969	19.0	8.8	17.8	9.5
1970	19.3	8.6	18.4	9.5
1971	18.0	8.6	17.2	9.3
1972	16.3	8.8	15.6	9.4
1973	15.6	8.7	14.9	9.4
1974	15.1	8.4	14.9	9.2
1975	14.6	8.1	14.8	8.9
1976	14.4	8.3	14.8	8.9
1977	15.1	8.1	15.4	8.8[p]
1978	15.0[p]	8.2[p]	15.3[p]	8.8[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), and special release; and National Center for Health Statistics, Vital Statistics of the United States (Washington, D.C.: 1964) and Monthly Vital Statistics Report (Washington, D.C.: monthly).

p: provisional.

TABLE III-3. FERTILITY RATES, MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1900-1977

Year	Michigan	United States
1900	78.5	n.a.
1910	99.0	126.8
1920	111.6	117.9
1930	87.6	89.2
1940	78.9	79.9
1950	110.5	106.2
1960	123.1	118.0
1970	91.7	87.6
1971	84.7	81.9
1972	76.5	73.4
1973	73.2	69.2
1974	70.0	68.4
1975	67.1	66.7
1976	68.7	65.8
1977	71.1	67.8

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 1.2; and Michigan Department of Public Health, special release (1977 data).
n.a.: not available.

TABLE III-4. LIVE BIRTHS IN MICHIGAN, BY RACE: 1963-1977

	White		Negro and other minority races		
Year	Number	Percentage of total births	Number	Percentage of total births	Total
1963	158,914	88.8	19,957	11.2	178,871
1964	154,790	88.4	20,313	11.6	175,013
1965	145,784	87.6	20,680	12.4	166,464
1966	143,876	86.8	21,918	13.2	165,794
1967	139,721	85.8	23,035	14.2	162,756
1968	135,436	85.1	23,622	14.9	159,058
1969	140,222	84.6	25,538	15.4	165,760
1970	143,871	83.8	27,796	16.2	171,667
1971	134,165	82.7	28,079	17.3	162,244
1972	119,788	81.6	27,066	18.4	146,854
1973	114,878	81.2	26,672	18.8	141,550
1974	112,474	81.9	24,940	18.1	137,414
1975	109,718	81.9	24,213	18.1	133,931
1976	107,907	82.1	23,471	17.9	131,378
1977	114,042	82.4	24,374	17.6	138,416

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 1.3; and Michigan Department of Public Health, special release (1977 data).

TABLE III-5. LIVE BIRTHS IN MICHIGAN, BY LIVE BIRTH ORDER: 1967 AND 1977

Live birth order	No. of births		Percentage of total	
	1967	1977	1967	1977
First birth	55,409	56,622	34.0	40.9
Second birth	41,278	44,355	25.4	32.0
Third birth	26,348	21,558	16.2	15.6
Fourth birth	15,956	8,007	9.8	5.8
Fifth birth or greater	23,680	5,678	14.5	4.1
Not stated	85	2,196	0.1	1.6
TOTAL	162,756	138,416	100.0	100.0

SOURCE: Michigan Department of Public Health, special release.

TABLE III-6. FIRST BIRTHS, MICHIGAN AND U.S. RESIDENTS: 1966-1977

Year	Michigan		United States	
	First births	Percentage of all births	First births	Percentage of all births
1966	55,100	33.2	1,224,786	34.0
1967	55,409	34.0	1,228,274	34.9
1968	52,147	32.8	1,311,460	37.5
1969	56,497	34.1	1,353,278	37.6
1970	64,222	37.4	1,430,680	38.3
1971	60,413	37.2	1,375,668	38.7
1972	57,477	39.1	1,289,257	39.6
1973	57,411	40.6	1,243,358	39.6
1974	56,233	40.9	1,314,194	41.6
1975	55,348	41.3	1,319,126	42.0
1976	54,003	41.1	1,324,811	41.8
1977	56,622	40.9	1,387,143	41.7

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 1.18; and Michigan Department of Public Health, special release (1977 data).

TABLE III-7. LIVE BIRTHS IN MICHIGAN, BY AGE OF MOTHER: 1925-1977

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Age not given
1925	62	10,248	28,116	16,204	18,869	11,406	3,695	379	241
1926	76	10,496	28,479	25,876	18,444	11,219	3,568	254	269
1927	59	10,685	29,302	25,707	18,790	11,287	3,722	332	294
1928	54	10,788	28,895	25,003	17,953	10,913	3,558	315	318
1929	56	11,312	30,582	25,557	16,957	10,555	3,523	293	299
1930	60	11,476	29,956	25,861	17,125	10,684	3,582	291	290
1931	61	10,109	27,255	23,806	15,937	9,905	3,317	302	237
1932	62	9,297	25,686	22,608	14,988	9,314	3,250	291	240
1933	52	8,642	23,874	21,618	14,298	8,795	3,173	261	210
1934	48	9,039	25,458	22,507	14,968	8,391	3,050	259	205
1935	47	9,808	27,631	22,938	15,026	8,473	3,029	284	210
1936	53	9,764	28,681	23,584	14,814	8,194	2,866	274	197
1937	54	10,524	30,532	24,366	15,022	7,949	2,653	242	197
1938	64	11,024	32,581	26,116	15,690	8,397	2,698	253	140
1939	51	10,368	31,036	26,095	15,976	8,021	2,416	209	130
1940	51	10,671	32,960	27,860	16,549	8,146	2,390	202	192
1941	50	11,309	36,833	31,067	17,132	8,351	2,361	200	155
1942	66	12,721	43,947	36,034	19,367	8,985	2,445	202	119
1943	67	11,934	41,627	37,773	21,449	9,980	2,615	184	149
1944	76	10,113	36,096	33,654	21,094	10,636	2,714	182	135
1945	73	9,294	32,790	33,143	22,831	11,185	2,970	229	140
1946	72	10,899	45,999	41,985	25,184	11,811	3,002	223	102
1947	91	15,594	55,954	47,793	26,296	12,009	3,073	182	93
1948	95	16,245	53,520	45,059	25,268	11,391	2,888	173	91
1949	117	16,404	53,608	46,363	25,971	11,565	2,906	181	63
1950	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92
1951	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84
1952	134	17,206	58,012	54,198	31,756	13,880	3,176	220	52
1953	166	18,510	58,070	54,734	32,948	14,798	3,350	190	44
1954	208	20,522	50,776	55,962	35,152	15,862	3,598	220	32
1955	195	21,417	61,952	56,462	35,968	16,554	3,862	198	15
1956	192	22,808	66,332	58,392	36,870	17,282	4,172	164	14
1957	190	23,798	67,086	58,424	36,980	17,956	4,160	200	14
1958	222	23,034	65,834	55,130	36,278	17,892	4,296	196	18
1959	200	21,922	65,426	53,434	34,934	18,030	4,424	198	8

TABLE III-7. LIVE BIRTHS IN MICHIGAN, BY AGE OF MOTHER: 1925-1977 (cont.)

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Age not given
1960	186	22,786	65,108	51,842	33,228	17,410	4,288	202	6
1961	212	23,891	64,336	50,277	32,456	17,067	4,363	203	20
1962	268	22,702	62,243	47,109	29,817	16,160	4,250	224	17
1963	210	21,686	62,834	46,063	28,364	15,117	4,359	229	9
1964	264	22,526	62,196	44,671	26,542	14,509	4,162	220	13
1965	267	24,653	59,439	40,693	23,767	13,528	3,886	211	20
1966	310	28,690	60,711	39,225	21,205	11,846	3,547	223	37
1967	316	27,267	61,541	40,052	19,840	10,479	3,059	178	24
1968	400	26,390	60,072	41,561	18,613	9,095	2,739	163	25
1969	421	28,061	63,376	44,615	18,535	8,157	2,433	134	28
1970	489	29,764	65,892	46,262	19,003	7,904	2,223	118	12
1971	472	28,480	62,367	43,639	18,259	6,975	1,926	112	14
1972	503	28,108	54,199	40,442	16,133	5,805	1,555	95	14
1973	569	27,808	51,284	39,845	15,520	5,163	1,277	62	22
1974	501	25,977	49,975	40,215	15,317	4,291	1,063	50	25
1975	463	24,509	48,675	40,061	14,891	4,273	982	54	23
1976	404	22,593	47,161	41,412	14,893	4,053	799	47	16
1977	426	22,585	49,740	43,346	17,293	4,178	771	51	26

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.3, and special release (1977 data).

NOTE: Total birth figures are presented in Table III-1.

TABLE III-8. LIVE BIRTH RATES IN MICHIGAN, BY AGE OF MOTHER: 1925-1977

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total fertility rate[a]
1925	0.3	57.4	155.9	145.4	115.2	73.9	28.8	3.5	2,902.0
1926	0.4	56.9	153.3	140.5	109.7	70.1	26.8	3.2	2,804.5
1927	0.3	56.0	153.3	136.8	108.9	68.1	27.0	2.9	2,766.5
1928	0.2	54.8	147.1	130.3	101.5	63.7	25.0	2.6	2,626.0
1929	0.2	55.7	151.5	130.6	93.6	59.6	23.9	2.4	2,587.5
1930	0.3	55.2	145.5	130.2	92.8	58.9	23.7	2.3	2,544.5
1931	0.3	47.8	130.4	118.3	85.3	54.3	21.5	2.3	2,301.0
1932	0.3	43.4	121.5	111.2	79.4	50.8	20.8	2.2	2,148.0
1933	0.2	39.7	111.6	105.2	75.0	47.7	20.0	1.9	2,006.5
1934	0.2	41.0	117.6	108.4	77.8	45.3	18.9	1.8	2,055.0
1935	0.2	43.9	126.2	109.4	77.4	45.5	18.5	2.0	2,115.5
1936	0.2	43.1	129.5	111.4	75.5	43.8	17.3	1.8	2,113.0
1937	0.2	45.9	136.4	113.9	75.9	42.3	15.8	1.6	2,160.0
1938	0.3	47.4	143.9	120.9	78.5	44.4	15.8	1.6	2,264.0
1939	0.2	44.1	135.6	119.6	79.2	42.3	14.0	1.3	2,181.5
1940	0.2	44.9	142.8	126.8	81.5	42.8	13.7	1.2	2,269.5
1941	0.2	48.1	157.8	137.1	81.6	42.5	13.2	1.2	2,408.5
1942	0.3	54.5	186.6	155.3	89.9	44.7	13.4	1.2	2,729.5
1943	0.3	51.6	175.1	159.0	97.1	48.6	14.1	1.1	2,734.5
1944	0.3	44.1	150.5	138.5	93.2	50.6	14.3	1.0	2,462.5
1945	0.3	40.8	135.5	133.4	98.5	52.1	15.4	1.3	2,386.5
1946	0.3	48.3	188.5	165.3	106.2	53.8	15.3	1.2	2,894.5
1947	0.4	69.7	227.3	184.2	108.4	53.6	15.4	1.0	3,300.0
1948	0.4	73.2	215.5	170.0	101.9	49.8	14.2	1.0	3,130.0
1949	0.5	74.6	214.0	171.4	102.5	49.6	14.1	1.0	3,138.5
1950	0.5	74.6	212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4	79.1	229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5	73.5	233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6	76.8	234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7	82.8	246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955	0.6	84.1	253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956	0.6	87.2	272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6	88.6	277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958	0.6	83.6	273.4	221.5	134.3	65.0	17.2	0.9	3,982.5
1959	0.6	77.6	273.3	217.4	128.6	64.4	17.3	0.9	3,900.5

TABLE III-8. LIVE BIRTH RATES IN MICHIGAN, BY AGE OF MOTHER: 1925-1977 (cont.)

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total fertility rate[a]
1960	0.5	79.3	273.1	213.0	121.8	61.4	16.6	0.9	3,833.0
1961	0.6	78.1	252.0	200.7	120.2	61.3	16.8	0.9	3,653.0
1962	0.7	70.7	231.5	183.9	111.4	58.9	16.3	0.9	3,371.5
1963	0.5	64.6	222.5	175.9	107.0	55.9	16.6	0.9	3,219.5
1964	0.6	64.2	210.1	167.0	101.0	54.4	15.8	0.9	3,070.0
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.2	154.2	76.2	32.4	8.3	0.4	2,584.5
1971	1.0	63.5	157.3	141.4	71.8	28.8	7.3	0.4	2,357.5
1972	1.0	62.5	136.4	130.7	63.4	23.9	5.8	0.3	2,120.0
1973	1.2	60.1	131.9	120.9	55.8	22.1	4.7	0.2	1,984.5
1974	1.1	55.4	126.0	120.2	52.4	18.1	4.5	0.2	1,889.5
1975	1.0	51.7	118.8	116.8	49.2	17.7	4.3	0.2	1,798.5
1976	0.9	47.7	122.1	120.8	48.7	18.4	4.3	0.2	1,815.5
1977	0.9	47.5	127.4	130.5	52.8	17.6	4.2	0.2	1,906.0

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.4, and special release (1977 data).

NOTE: Live birth rates are per 1,000 women per year.

a. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

TABLE III-9. INFANT, NEONATAL, PERINATAL, FETAL, AND MATERNAL DEATHS, AND DEATHS DUE TO IMMATURITY IN MICHIGAN: 1940 TO 1978

Year	Under 1 year	Under 28 days	Perinatal	Due to immaturity	Fetal	Maternal
1940	4,022	2,629	4,749	1,298	2,602	292
1941	4,166	2,687	4,991	1,353	2,769	298
1942	4,606	3,091	5,581	1,575	3,067	260
1943	4,804	2,979	5,563	1,488	3,213	237
1944	4,326	2,784	5,140	1,412	2,874	198
1945	4,008	2,670	4,906	1,339	2,703	166
1946	4,541	3,323	5,978	1,735	3,168	163
1947	5,055	3,677	6,583	1,955	3,422	173
1948	4,617	3,352	5,968	1,820	3,132	120
1949	4,520	3,232	5,746	1,795	2,994	105
1950	4,214	3,043	5,781	1,096	3,095	91
1951	4,505	3,296	6,088	1,232	3,158	94
1952	4,689	3,414	6,266	1,256	3,224	82
1953	4,728	3,389	6,188	1,114	3,180	79
1954	4,795	3,560	6,415	1,298	3,249	94
1955	4,873	3,707	6,381	1,272	3,029	61
1956	5,047	3,796	6,655	1,244	3,245	84
1957	5,093	3,884	6,668	1,322	3,154	79
1958	4,980	3,789	6,516	1,208	3,101	69
1959	4,846	3,674	6,250	1,201	2,928	72
1960	4,702	3,580	6,247	1,148	3,008	75
1961	4,604	3,475	5,875	1,003	2,735	78
1962	4,367	3,251	5,669	907	2,703	56
1963	4,150	3,109	5,407	816	2,540	71
1964	4,043	3,071	5,293	807	2,466	62
1965	3,936	2,909	5,139	768	2,475	54
1966	3,751	2,830	4,909	819	2,295	54
1967	3,595	2,714	4,693	718	2,195	52
1968	3,438	2,617	4,476	487	2,064	44
1969	3,356	2,550	4,488	459	2,175	27
1970	3,492	2,683	4,522	436	2,060	29
1971	3,157	2,412	4,139	386	1,923	32
1972	2,801	2,115	3,700	316	1,770	35
1973	2,561	1,902	3,392	263	1,682	26
1974	2,387	1,734	2,960	240	1,451	19
1975	2,205	1,563	2,690	187	1,373	16
1976	1,978	1,424	2,502	186	1,271	14
1977	1,945	1,369	2,456	155	1,288	11
1978	1,921[p]	n.a.	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.1, and special release (1977 and 1978 data).
p: provisional.
n.a.; not available.

TABLE III-10. NUMBER OF DEATHS BY FIVE LEADING CAUSES AMONG MICHIGAN RESIDENTS: 1940-1978

Year	Heart disease	Cancer (all forms)	Cerebro-vascular disease	Accidents		Diabetes	Influenza and Pneumonia
				Motor vehicle	All forms		
1940	15,480	6,513	4,690	1,743	3,961	1,408	n.a.
1941	15,761	6,551	4,698	2,156	4,450	1,382	n.a.
1942	16,016	6,646	4,841	1,368	3,685	1,448	n.a.
1943	17,816	7,127	5,311	1,025	3,480	1,535	n.a.
1944	17,004	7,277	4,954	1,103	3,350	1,554	n.a.
1945	17,421	7,486	5,295	1,199	3,432	1,561	n.a.
1946	17,691	7,845	5,224	1,506	3,776	1,530	n.a.
1947	18,412	8,188	5,426	1,499	3,848	1,618	n.a.
1948	18,726	8,336	5,272	1,545	4,017	1,771	n.a.
1949	19,137	8,697	5,438	1,493	3,838	1,884	n.a.
1950	20,521	8,685	6,376	1,680	3,783	1,438	n.a.
1951	21,118	9,187	6,579	1,806	3,916	1,374	n.a.
1952	21,247	9,256	6,521	1,815	3,901	1,339	n.a.
1953	22,425	9,904	7,045	2,051	4,375	1,419	n.a.
1954	22,362	10,105	6,964	1,916	3,948	1,469	n.a.
1955	23,440	10,297	7,362	2,129	4,213	1,415	n.a.
1956	24,661	10,489	7,114	1,826	3,925	1,443	n.a.
1957	25,369	10,810	7,632	1,680	3,643	1,510	n.a.
1958	25,215	10,946	7,547	1,466	3,306	1,595	n.a.
1959	25,323	11,113	7,700	1,587	3,666	1,715	n.a.
1960	25,728	11,331	7,682	1,710	3,688	1,784	n.a.
1961	25,519	11,476	7,745	1,656	3,692	1,778	n.a.
1962	27,226	11,752	7,783	1,668	3,758	1,908	n.a.
1963	27,483	12,078	8,168	2,005	4,033	2,049	n.a.
1964	27,496	12,087	7,940	2,286	4,416	2,055	n.a.
1965	28,134	12,419	7,769	2,271	4,494	2,153	n.a.
1966	28,277	12,506	7,732	2,407	4,737	2,243	n.a.
1967	28,757	13,030	7,846	2,265	4,519	2,182	n.a.
1968	29,680	13,292	7,913	2,466	4,603	2,298	n.a.
1969	29,396	13,328	7,706	2,529	4,766	2,188	n.a.
1970	29,204	13,551	7,691	2,309	4,428	2,180	2,101
1971	30,095	13,594	7,826	2,274	4,426	2,103	2,058
1972	30,865	14,045	7,999	2,450	4,566	2,222	2,201
1973	29,944	14,220	7,987	2,389	4,630	2,074	2,090
1974	29,220	14,241	7,645	1,929	4,211	1,940	1,698
1975	28,298	14,445	7,262	1,841	4,002	1,819	1,825
1976	29,233	14,880	7,354	1,993	3,912	1,719	2,106
1977	28,895	15,125	6,818	1,993	3,945	1,615	1,660
1978	31,044[p]	14,705[p]	6,406[p]	1,871[p]	3,527[p]	1,522[p]	2,128[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.8; andspecial release (1977 and 1978 data).
p: provisional
n.a.: not available. During this period, diabetes ranked above influenza and pneumonia.

TABLE III-12. DEATH RATES AMONG MICHIGAN RESIDENTS, BY AGE AND SEX: 1976 AND 1977

Age	1976			1977		
	Male	Female	Total	Male	Female	Total
All ages	947.5	721.1	832.6	926.2	701.5	812.2
0-4 years	346.1	295.8	321.5	363.9	289.6	327.6
5-9 years	39.5	26.3	33.0	30.2	26.3	28.3
10-14 years	37.9	22.4	30.3	44.3	21.9	33.3
15-19 years	149.7	56.2	102.6	144.3	55.4	99.7
20-24 years	266.0	79.2	167.9	229.2	67.1	145.4
25-29 years	272.4	91.6	171.0	283.3	85.8	169.9
30-34 years	168.1	93.5	132.6	167.4	88.2	129.0
35-39 years	229.2	162.1	198.2	223.3	148.7	189.0
40-44 years	414.7	288.6	355.2	408.0	290.2	352.5
45-49 years	594.0	372.2	484.9	596.5	388.5	495.2
50-54 years	950.7	537.9	739.4	958.1	507.7	728.5
55-59 years	1,527.7	792.3	1,146.8	1,430.6	740.9	1,072.2
60-64 years	2,454.7	1,224.5	1,821.5	2,359.0	1,156.4	1,736.2
65-69 years	3,892.2	2,037.9	2,904.4	3,709.7	1,958.7	2,777.9
70-74 years	6,059.9	3,145.4	4,410.0	5,978.2	3,070.0	4,335.1
75-79 years	7,211.0	4,339.5	5,506.9	7,415.1	4,257.6	5,528.6
80-84 years	8,230.6	6,040.3	6,928.8	7,851.6	5,892.4	6,678.1
85 and over	15,932.2	14,740.1	15,174.8	14,468.7	13,642.0	13,944.8

SOURCES: Michigan Department of Public Health, special release.

NOTE: Rates per 100,000 population.

TABLE III-14. LIFE EXPECTANCY AT BIRTH, BY SEX, MICHIGAN AND U.S. RESIDENTS, SELECTED YEARS: 1901-1977

Year	Michigan[a]		United States	
	Male life expectancy	Female life expectancy	Male life expectancy	Female life expectancy
1901	53.4	55.1	47.6	50.6
1910	53.9	56.2	48.4	51.8
1920	55.1	56.0	53.6	54.6
1930	59.8	62.8	58.1	61.6
1940	63.4	67.4	60.8	65.2
1950	65.7	71.2	65.6	71.1
1960	67.1	73.3	66.6	73.1
1970	67.2	74.6	67.1	74.8
1971	67.3	74.9	67.4	75.0
1972	67.3	74.9	67.4	75.1
1973	67.4	75.0	67.6	75.3
1974	68.0	75.3	68.1	75.8
1975	68.5	75.7	68.7	76.5
1976	69.0	75.9	69.0	76.7
1977	69.3	76.3	--	--

SOURCE: Michigan Department of Public Health, special release.
a. Michigan data for 1920, 1930, and 1940 are for white only.

TABLE III-15. LIFE EXPECTANCY AT BIRTH BY SEX AND RACE, MICHIGAN RESIDENTS: 1950, 1960, 1970, AND 1977

Population subgroup	Year			
	1950	1960	1970	1977
White				
Female	71.9	74.0	75.3	77.0
Male	66.2	67.5	68.2	70.1
Total white	68.8	70.5	71.6	73.5
All other				
Female	63.4	67.7	69.4	72.0
Male	60.4	63.6	61.0	64.1
Total all other	61.8	65.6	65.0	67.9
Total				
Female	71.2	73.3	74.6	76.3
Male	65.7	67.1	67.2	69.3
Total population	68.3	70.0	70.8	72.7

SOURCE: Michigan Department of Public Health, special release.

TABLE III-11. NUMBER OF DEATHS AMONG MICHIGAN RESIDENTS, BY SIXTEEN LEADING CAUSES, BY SEX AND AGE GROUP: 1977

Year	Sex			Age group					
	Male	Female	Total	Under 1 year	1-19 years	20-44 years	45-64 years	65 and over	Not stated
Diseases of heart	16,229	12,666	28,895	31	30	616	6,591	21,626	1
Cancer	8,472	6,653	15,125	6	174	735	5,466	8,744	--
Cerebrovascular	3,002	3,816	6,818	9	21	171	914	5,703	--
Accidents	2,700	1,245	3,945	43	990	1,371	671	867	3
Diabetes mellitus	684	931	1,615	2	1	62	378	1,172	--
Influenza and pneumonia	963	697	1,660	57	33	79	256	1,234	1
Cirrosis of liver	912	444	1,356	1	1	236	774	344	--
Homicide	730	216	946	6	127	590	165	55	3
Suicide	952	328	1,280	--	114	596	363	207	--
Arteriosclerosis	475	689	1,164	--	--	3	53	1,107	1
Emphysema	533	142	675	--	--	9	177	489	--
Aortic aneurysm (nonsyphilitic)	418	166	584	--	2	10	123	449	--
Congenital anomalies	282	241	525	311	105	51	34	24	--
Venous thrombosis and embolism[a]	261	270	531	--	--	35	165	331	--
Nephritis and nephrosis	178	156	334	3	5	34	77	215	--
Peptic Ulcer	154	89	243	--	--	16	74	153	--
All other causes	4,751	3,718	8,469	1,460	249	699	1,743	4,315	3
TOTAL	41,634	32,508	74,144[b]	1,945	1,855	5,307	17,987	47,038	12

SOURCE: Michigan Department of Public Health, special release.

a. Includes 8th revision ICDA codes 450-453.

b. Male and female death do not seem to total due to two congenital anomaly deaths with sex unknown.

TABLE III-13. DEATHS FROM ACCIDENTS IN MICHIGAN, BY EXTERNAL CAUSE OF INJURY: 1969-1977

Cause of injury	1969	1970	1971	1972	1973	1974	1975	1976	1977
Transport, total	2,740	2,441	2,410	2,609	2,542	2,040	1,961	2,093	2,094
Motor vehicle	2,579	2,309	2,274	2,450	2,389	1,929	1,841	1,993	1,993
Railroad	19	19	21	15	11	10	10	9	8
Other road vehicle, nontraffic	6	4	5	11	6	5	4	6	2
Water transportation	89	67	64	62	67	47	56	35	33
Air transportation	47	42	46	71	69	49	50	50	58
Nontransport, total	1,969	1,922	1,969	1,924	2,004	2,106	1,978	1,763	1,781
Poisoning	186	210	214	225	229	232	246	223	156
Falls	713	724	674	653	652	685	618	580	564
Blow from falling object	33	44	48	32	36	36	32	35	45
Machinery	26	29	22	31	24	22	32	22	21
Electric current	38	32	39	39	42	33	46	30	55
Fire and explosion of combustible material	292	256	325	277	283	337	274	251	311
Hot substance, corrosive liquid, steam radiation	50	42	12	8	10	8	12	5	3
Firearm	80	79	70	69	75	87	67	53	60
Inhalation or ingestion of food or other object	117	127	125	118	135	151	139	143	105
Mechanical suffocation	59	53	43	57	39	49	38	41	28
Drowning or submersion	259	231	224	244	294	275	293	235	238
Other causes	116	95	173	171	185	191	181	145	195
Therapeutic, misadventure, late complication; complications of nontherapeutic procedures; late effects of injury and poisoning	57	65	47	33	84	65	63	56	70
TOTAL	4,766	4,428	4,426	4,566	4,630	4,211	4,002	3,912	3,945

SOURCE: Michigan Department of Public Health, special release.

TABLE III-16. REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES IN MICHIGAN, SELECTED PERIODS: 1930-1977

Disease	Annual average				Annual total			
	1930-1939	1940-1949	1950-1959	1960-1969	1974	1975	1976	1977
Diphtheri	1,121	245	66	2	0	1	0	0
Scarlet fever	15,860[a]	7,553[a]	6,745[a]	11,656[a]	31,802[a]	23,777[a]	24,937[a]	31,047[a]
Smallpox	445	26	0	0	0	0	0	0
Typhoid fever	373	85	31	9	11	10	10	13
Whooping cough	11,815	8,676	3,464	884	104	98	70	73
Measles	28,467	29,939	28,907	21,569	2,365	3,253	6,139	1,392
Infectious hepatitis[b] (includes serum hepatitis)	0	44	748	2,798	3,599	2,656	2,645	2,686
Tuberculosis[c] (all forms)	5,897	5,967	5,559	3,181	1,431	1,271	1,349	1,290
Meningococcal infections[d]	190	257	164	127	54	76	65	51
Poliomyelitus	393	844	1,593	18	2	0	1	0
Syphilis	10,670	13,726	5,495	4,824	2,722	1,638	1,089	1,185
Gonorrhea	6,931	10,176	8,858	13,612	32,067	32,583	34,836	36,794
Chancroid	180	277	106	99	171	98	37	61

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.5, and special release (1977 data).

a. Streptococcal sore throat including scarlet fever.

b. No cases tabulated prior to 1945. Figure shown is average of 1945-1949.

c. Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

d. Prior to 1952 data were for meningococcic meningitis.

TABLE III-17. LIVE BIRTHS AND DEATHS, AND RATES, AMONG MICHIGAN RESIDENTS, BY COUNTY: 1976 AND 1977

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1976	1977	1976	1977	1976	1977	1976	1977
Alcona	100	105	11.4	11.8	122	114	13.9	12.8
Alger	130	164	13.8	16.7	116	107	12.3	10.9
Allegan	1,201	1,213	16.8	16.4	616	582	8.6	7.9
Alpena	435	472	13.2	14.0	266	269	8.1	8.0
Antrim	228	208	14.8	13.2	177	193	11.5	12.2
Arenac	200	221	15.2	16.3	146	133	11.1	9.8
Baraga	117	145	14.6	17.3	102	97	12.8	11.5
Barry	569	666	13.6	15.8	344	354	8.2	8.4
Bay	828	1,942	15.3	16.2	934	954	7.8	7.9
Benzie	143	147	13.8	14.0	129	123	12.4	11.7
Berrien	2,613	2,865	15.2	16.9	1,514	1,523	8.8	9.0
Branch	522	610	13.6	16.2	354	384	9.2	10.2
Calhoun	2,068	2,212	14.7	15.8	1,285	1,283	9.2	9.2
Cass	614	766	13.4	17.1	395	406	8.6	9.1
Charlevoix	269	309	14.0	15.8	188	200	9.8	10.3
Cheboygan	287	312	14.5	15.4	203	210	10.3	10.3
Chippewa	728	594	19.6	16.1	259	312	7.0	8.5
Clare	307	298	13.7	13.1	238	238	10.6	10.4
Clinton	746	818	14.4	15.0	335	328	6.5	6.0
Crawford	135	141	15.0	15.7	90	86	10.0	9.6
Delta	584	604	14.9	15.1	409	389	10.4	9.7
Dickinson	317	375	12.6	14.8	326	327	13.0	12.9
Eaton	1,069	1,144	13.7	14.4	536	490	6.9	6.2
Emmet	291	326	13.8	15.3	220	222	10.4	10.4
Genesee	7,018	7,311	15.7	16.4	3,187	3,274	7.1	7.4
Gladwin	231	264	13.6	15.3	182	202	10.7	11.7
Gogebic	242	231	12.0	11.4	287	283	14.2	13.9
Grand Traverse	686	804	14.9	17.3	420	395	9.2	8.5
Gratiot	620	675	15.8	17.0	356	333	9.1	8.4
Hillsdale	554	632	13.7	15.6	377	345	9.4	8.5
Houghton	514	486	14.0	13.1	448	425	12.2	11.5
Huron	536	583	15.1	15.9	398	410	11.2	11.2
Ingham	4,114	4,357	15.3	16.0	1,631	1,634	6.1	6.0
Ionia	843	799	17.3	16.3	400	417	8.2	8.5
Iosco	565	578	19.7	18.9	253	282	8.8	9.2
Iron	138	191	9.3	13.2	211	187	14.2	12.9
Isabella	681	759	13.2	14.7	315	330	6.1	6.4
Jackson	2,097	2,210	14.3	14.7	1,301	1,295	8.9	8.6
Kalamazoo	2,848	2,966	14.1	14.4	1,411	1,338	7.0	6.5
Kalkaska	167	165	16.7	14.3	109	92	10.9	8.0
Kent	6,735	7,263	15.8	16.9	3,449	3,365	8.1	7.8
Keweenaw	19	22	8.3	8.5	38	31	16.5	11.7
Lake	81	114	11.9	16.1	117	115	17.2	16.2

TABLE III-17. LIVE BIRTHS AND DEATHS, AND RATES, AMONG MICHIGAN RESIDENTS, BY COUNTY: 1976 AND 1977 (cont.)

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1976	1977	1976	1977	1976	1977	1976	1977
Lapeer	1,019	1,067	16.2	16.5	474	462	7.5	7.2
Leelanau	156	136	12.5	10.4	111	127	8.9	9.7
Lenawee	1,300	1,434	15.0	16.8	735	701	8.5	8.2
Livingston	1,167	1,244	14.3	14.4	527	508	6.5	5.9
Luce	115	112	15.8	15.6	71	88	9.7	12.2
Mackinac	149	163	14.5	15.1	112	116	10.9	10.7
Macomb	8,729	9,040	13.0	13.2	4,134	4,119	6.2	6.0
Manistee	261	290	12.0	13.3	264	272	12.1	12.5
Marquette	1,236	1,359	17.5	18.6	512	527	7.2	7.2
Mason	325	359	13.1	14.2	277	247	11.1	9.8
Mecosta	458	468	13.3	13.7	265	214	7.7	6.3
Menominee	362	400	14.4	15.3	298	300	11.8	11.5
Midland	1,107	1,082	16.4	15.5	392	418	5.8	6.0
Missaukee	150	156	16.3	16.6	73	78	7.9	8.3
Monroe	1,848	2,072	14.5	16.0	857	907	6.7	7.0
Montcalm	702	792	15.8	17.2	442	432	10.0	9.4
Montmorency	77	115	10.8	15.8	84	77	11.8	10.5
Muskegon	2,431	2,515	15.4	15.9	1,404	1,315	8.9	8.3
Newaygo	517	552	16.6	17.1	329	313	10.5	9.7
Oakland	12,312	13,084	12.7	13.3	6,702	6,637	6.9	6.7
Oceana	343	337	16.6	16.0	214	230	10.3	11.0
Ogemaw	193	215	13.0	14.4	204	191	13.7	12.8
Ontonagon	156	121	13.6	10.9	117	111	10.2	10.0
Osceola	295	288	16.6	15.6	206	180	11.6	9.7
Oscoda	79	83	12.0	13.0	90	72	13.6	11.3
Otsego	210	257	14.9	17.8	95	88	6.7	6.1
Ottawa	2,193	2,499	15.4	17.1	915	935	6.4	6.4
Presque Isle	205	220	14.7	15.7	168	143	12.1	10.2
Roscommon	176	208	11.7	13.2	191	190	12.6	12.1
Saginaw	3,614	3,700	16.0	16.3	1,831	1,705	8.1	7.5
St. Clair	1,936	2,015	14.9	15.3	1,269	1,182	9.8	9.0
St. Joseph	830	902	16.2	17.7	481	457	9.4	9.0
Sanilac	597	604	15.1	15.6	417	399	10.5	10.3
Schoolcraft	122	152	13.7	17.1	130	105	14.6	11.8
Shiawassee	1,072	1,138	15.6	16.4	516	508	7.5	7.3
Tuscola	766	864	14.1	16.0	499	460	9.2	8.5
Van Buren	953	1,047	15.4	16.9	549	621	8.9	10.0
Washtenaw	3,480	3,562	14.0	14.2	1,282	1,219	5.2	4.9
Wayne	35,181	36,293	14.2	15.0	24,118	23,173	9.7	9.6
Wexford	351	384	16.0	17.1	221	210	10.0	9.4
Not stated	15	20			31	30		
TOTAL	131,378	138,416	14.4	15.2	75,801	74,144	8.3	8.1

SOURCE: Michigan Department of Public Health, Michigan Vital Statistics by County, 1976 and 1977.
a. Rate per 1,000 population.

TABLE III-18. MARRIAGES AND DIVORCES TAKING PLACE IN MICHIGAN AND THE UNITED STATES: 1940-1978

Year	Michigan		United States	
	Marriages	Divorces	Marriages	Divorces
1940	46,342	12,054	1,595,879	164,000
1941	50,989	13,317	1,695,999	293,000
1942	51,582	14,085	1,722,132	321,000
1943	44,385	15,259	1,577,050	359,000
1944	41,678	18,356	1,452,394	400,000
1945	48,329	21,133	1,612,992	485,000
1946	78,808	29,158	2,291,045	610,000
1947	71,319	21,386	1,991,878	483,000
1948	61,986	16,017	1,811,155	408,000
1949	53,109	16,274	1,579,798	397,000
1950	58,180	15,979	1,667,231	385,144
1951	53,411	15,446	1,594,694	381,000
1952	50,487	14,925	1,539,318	392,000
1953	53,308	16,537	1,546,000	390,000
1954	51,243	16,281	1,490,000	379,000
1955	55,698	17,676	1,531,000	377,000
1956	57,068	16,228	1,585,000	382,000
1957	55,121	15,442	1,518,000	381,000
1958	55,159	14,040	1,451,000	368,000
1959	58,826	16,168	1,494,000	395,000
1960	61,090	16,656	1,523,000	393,000
1961	63,320	16,219	1,548,000	414,000
1962	65,002	17,500	1,577,000	413,000
1963	68,160	17,479	1,654,000	428,000
1964	73,911	19,400	1,725,000	450,000
1965	81,247	20,305	1,800,000	479,000
1966	83,903	21,727	1,875,000	499,000
1967	84,363	23,620	1,927,000	523,000
1968	90,984	25,400	2,069,000	584,000
1969	93,392	28,347	2,145,000	639,000
1970	91,933	29,934	2,158,802	708,000
1971	92,134	31,790	2,190,481	773,000
1972	94,447	35,505	2,282,154	845,000
1973	94,486	37,121[a]	2,284,108	915,000
1974	88,023	39,940[a]	2,229,667	977,000
1975	82,856	40,782	2,152,662	1,036,000
1976	82,753	43,101	2,154,807	1,083,000
1977	86,088	43,036	2,176,000[p]	1,097,000[p]
1978	86,476[p]	45,050[p]	n.a.	n.a.

SOURCES: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.1 (pre-1977 Michigan data), and special release (1977 Michigan data and 1976 U.S. marriage data); National Center for Health Statistics, Vital Statistics of the United States, 1972, vol. 3, Marriage and Divorce (Rockville, Md.: 1975), Tables 1.5 and 2.2 (pre-1958 U.S. data); and National Center for Health Statistics, Monthly Vital Statistics Report, vol. 26, no. 2 (1958-1975 U.S. marriage data), vol. 27, no. 5 (1958-1976 U.S. divorce data), and vol. 26, no. 12 (1977 U.S. provisional data).

a. estimate.
p.: provisional.
n.a.: not available.

TABLE III-19. MARRIAGE AND DIVORCE RATES IN MICHIGAN AND THE UNITED STATES: 1940-1977

Year	Michigan		United States	
	Marriages	Divorces	Marriages	Divorces
1940	8.8	2.3	12.1	2.0
1941	9.4	2.5	12.7	2.2
1942	9.3	2.6	13.2	2.4
1943	8.3	2.9	11.7	2.6
1944	7.8	3.4	10.9	2.9
1945	8.6	3.9	12.2	3.5
1946	13.8	5.1	16.4	4.3
1947	11.8	3.6	13.9	3.4
1948	10.0	2.6	12.4	2.8
1949	8.4	2.6	10.6	2.7
1950	9.2	2.5	11.1	2.6
1951	8.2	2.4	10.4	2.5
1952	7.6	2.2	9.9	2.5
1953	7.8	2.4	9.8	2.5
1954	7.3	2.3	9.2	2.4
1955	7.7	2.5	9.3	2.3
1956	7.6	2.2	9.5	2.3
1957	7.1	2.0	8.9	2.2
1958	7.0	1.8	8.4	2.1
1959	7.4	2.1	8.5	2.2
1960	7.8	2.2	8.5	2.2
1961	8.0	2.1	8.5	2.3
1962	8.2	2.2	8.5	2.2
1963	8.5	2.2	8.8	2.3
1964	9.1	2.4	9.0	2.4
1965	9.9	2.5	9.3	2.5
1966	10.1	2.6	9.5	2.5
1967	9.8	3.0	9.7	2.6
1968	10.5	3.0	10.4	2.9
1969	10.7	3.3	10.6	3.2
1970	10.4	3.4	10.6	3.5
1971	10.3	3.5	10.6	3.7
1972	10.5	3.9[a]	11.0	4.1
1973	10.5	4.1[a]	10.9	4.4
1974	9.7	4.4[a]	10.5	4.6
1975	9.1	4.5	10.1	4.9
1976	9.1	4.7	10.0	5.0
1977	9.4	4.7	10.1[p]	5.1[p]

SOURCES: Adapted from Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 4.2 (pre-1977 Michigan data), and special release (1979 Michigan data and 1976 U.S. marriage data); National Center for Health Statistics, Vital Statistics of the United States, 1972, vol. 3, Marriage and Divorce (Rockville, Md.: 1975), Tables 1.5 and 2.2 (pre-1958 U.S. data); and National Center for Health Statistics, Monthly Vital Statistics Report, vol. 26, no. 2 (1958-1975 U.S. marriage data), vol. 27, no. 5 (1958-1976 U.S. divorce data), and vol. 26, no. 12 (1977 U.S. provisional data).
NOTE: Rates are based on marriages and divorces per 1,000 population.

a. estimate.
p. provisional.

TABLE III-21. DIVORCES AND ANNULMENTS IN MICHIGAN, BY DURATION OF MARRIAGE: 1966, 1967, 1976, AND 1977

Duration in years	1966		1967		1976		1977	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 1 year	367	1.7	320	1.4	397	0.9	447	1.0
1-4 years	6,702	30.8	7,416	31.4	14,087	32.7	13,522	31.4
5-9 years	5,348	24.6	5,755	24.4	12,683	29.4	12,958	30.1
10-14 years	3,474	16.0	3,762	15.9	6,557	15.2	6,825	15.9
15-19 years	2,525	11.6	2,562	10.8	3,527	8.2	3,613	8.4
20-24 years	1,654	7.6	2,047	8.7	2,591	6.0	2,503	5.8
25-29 years	882	4.1	967	4.1	1,629	3.8	1,631	3.8
30-34 years	424	2.0	457	1.9	741	1.7	811	1.9
35-39 years	181	0.8	177	0.8	333	0.8	303	0.7
40-44 years	86	0.4	75	0.3	114	0.3	103	0.2
45-49 years	36	0.2	33	0.1	41	0.1	33	0.1
50 and over	10	0.0	9	0.0	15	0.0	24	0.1
Not stated	38	0.2	40	0.2	386	0.9	263	0.6
TOTAL	21,727	100.0	23,620	100.0	43,101	100.0	43,036	100.0
Median duration (years)	8.5	000	8.5	000	7.75	000	7.8	000

SOURCES: Michigan Department of Public Health, Michigan Health Statistics, 1976 (Lansing: 1979), Table 3.14, and special release.

TABLE III-22. BOOK CENSUS OF PATIENTS IN STATE REGIONAL PSYCHIATRIC HOSPITALS AND CENTERS FOR DEVELOPMENTAL DISABILITIES: FISCAL YEAR ENDED 30 SEPTEMBER 1978

Name of institution	Location	Book census, 30 September 1978		
		Residents[a]	Nonresidents[b]	Total
Regional psychiatric hospitals[c]				
Caro Regional Mental Health Center	Caro	19	4	23
Clinton Valley Center	Pontiac	797	228	1,025
Detroit Psychiatric Institute	Detroit	159	87	246
Hawthorne Center	Northville	148	154	302
Kalamazoo Regional Psychiatric Center	Kalamazoo	850	150	1,000
Lafayette Clinic	Detroit	121	35	156
Metropolitan Regional Psychiatric Hospital	Eloise	168	1	169
Michigan Institute for Mental Health	Dimondale	59	36	95
Newberry Regional Mental Health Center	Newberry	209	5	214
Northville Regional Psychiatric Hospital	Northville	639	74	713
Northville Residential Training Center	Northville	24	0	24
Traverse City Regional Psychiatric Hospital	Traverse City	470	158	628
Ypsilanti Regional Psychiatric Hospital	Ypsilanti	1,004	113	1,117
Center for Forensic Psychiatry	Ann Arbor	112	2	114
TOTAL		4,779	1,047	5,826
Centers for developmental disabilities[d]				
Alpine Regional Center for Developmental Disabilities	Gaylord	167	235	402
Caro Regional Mental Health Center	Caro	687	69	756
Coldwater Regional Center for Developmental Disabilities	Coldwater	868	288	1,156
Hillcrest Regional Center for Developmental Disabilities	Howell	346	284	630
Macomb-Oakland Regional Center	Mt. Clemens	133	671	804
Mt. Pleasant Regional Center for Developmental Disabilities	Mt. Pleasant	653	210	863
Muskegon Regional Center for Developmental Disabilities	Muskegon	381	103	484
Newberry Regional Mental Health Center	Newberry	282	34	316
Northville Residential Training Center	Northville	170	28	198
Oakdale Regional Center for Developmental Disabilities	Lapeer	1,077	216	1,293
Plymouth Center for Human Development	Northville	763	554	1,317
Southgate Regional Center for Developmental Disabilities	Southgate	201	110	311
TOTAL		5,728	2,802	8,530

SOURCE: Michigan Department of Mental Health, special release.

a. In house and on authorized or unauthorized leave.

b. Community living facilities, foster family care, and convalescent status.

c. Facilities for mentally ill.

d. Facilities for mentally retarded.

TABLE III-23. UTILIZATION OF COMMUNITY HOSPITALS IN MICHIGAN: 1966-1977

Year	Hospitals[a]	Beds	Admissions	Occupancy (percent)	Average daily census
1966	200	30,966	1,115,897	82.1	25,424
1967	199	32,063	1,104,893	80.6	25,848
1968	198	32,426	1,099,034	81.2	26,339
1969	200	32,802	1,138,246	81.5	26,743
1970	197	33,136	1,149,799	80.4	26,625
1971	199	33,851	1,174,859	79.5	26,928
1972	201	35,464	1,229,295	79.5	28,186
1973	202	36,447	1,266,177	79.5	28,962
1974	211	38,120	1,354,383	79.9	30,447
1975	210	39,089	1,383,654	79.4	31,021
1976	210	39,695	1,394,464	77.5	30,755
1977	212	40,146	1,426,706	76.7	30,812

SOURCES: American Hospital Association, Hospital Statistics 1972 through 1977 (Chicago: annually), Table 6 (1978); and American Hospital Association, Hospitals, Journal of the American Hospital Association, Guide Issue, 1966 through 1971 (Chicago: annually).
a. Hospitals accepted for registration by the American Hospital Association; excludes hospital units of institutions.

TABLE III-24. UTILIZATION OF COMMUNITY HOSPITALS IN MICHIGAN, BY STANDARD METROPOLITAN STATISTICAL AREA AND OUTSIDE STANDARD METROPOLITAN STATISTICAL AREAS: 1977

Area	Hospitals[a]	Beds	Admissions	Occupancy (percent)	Average daily census
Nonmetro	80	7,446	246,024	69.6	5,179
Metro	132	32,700	1,180,682	78.4	25,633
Ann Arbor	5	1,988	69,723	80.7	1,605
Battle Creek	8	1,074	34,980	68.7	738
Bay City	3	530	21,489	74.2	393
Detroit	68	18,239	658,425	81.0	14,766
Flint	8	2,549	96,040	77.6	1,977
Grand Rapids	10	2,517	85,460	78.5	1,977
Jackson	2	561	23,441	74.0	415
Kalamazoo-Portage	5	1,197	41,229	74.0	880
Lansing-East Lansing	12	1,789	68,295	68.3	1,222
Muskegon-Muskegon Heights-Norton Shores	6	833	27,215	72.6	605
Saginaw	4	1,201	44,379	75.2	903
Toledo	1	222	10,006	65.8	146
TOTAL	212	40,146	1,426,706	76.7	30,812

SOURCE: American Hospital Association, Hospital Statistics, 1978 (Chicago: 1978), Table 6.
a. Hospitals accepted for registration by the American Hospital Association; excludes hospital units of institutions.

TABLE III-25. HEALTH INSURANCE PREMIUMS IN MICHIGAN AND THE UNITED STATES: 1961-1975

(In millions of dollars)

Year	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
1961	232	5,029	255	3,246	488	8,275
1962	261	5,595	278	3,601	539	9,196
1963	296	6,145	301	3,918	598	10,063
1964	326	6,769	334	4,332	660	11,101
1965	360	7,352	360	4,777	720	12,129
1966	378	7,796	388	4,969	766	12,765
1967	402	8,295	410	5,247	812	13,542
1968	427	9,082	465	5,966	893	15,048
1969	477	10,197	580	7,089	1,057	17,286
1970	558	11,546	706	8,439	1,265	19,985
1971	619	12,777	867	10,058	1,487	22,835
1972	673	14,771	994	11,465	1,667	26,236
1973	761	16,104	1,119	12,908	1,880	29,012
1974	821	17,915	1,209	14,523	2,030	32,448
1975	899	21,223	1,301	16,943	2,200	38,176

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1962-63 through 1977-78 (New York, N.Y.: annually), pp. 48-49.
NOTE: The data refer to insurance company written premiums and earned subscription income of Blue Cross, Blue Shield, and other hospital-medical plans. The category "Insurance companies" includes premiums for loss of income protection.

TABLE III-26. HEALTH INSURANCE BENEFIT PAYMENTS IN MICHIGAN AND THE UNITED STATES: 1961-1975

(In millions of dollars)

Year	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
1961	169	3,395	245	3,002	414	6,397
1962	192	3,763	266	3,314	458	7,077
1963	215	4,152	279	3,649	495	7,801
1964	244	5,658	305	4,039	550	8,697
1965	273	5,160	335	4,464	608	9,624
1966	295	5,559	365	4,600	661	10,159
1967	320	6,029	403	5,080	723	11,109
1968	338	6,717	446	5,521	785	12,233
1969	389	7,575	505	6,692	895	14,267
1970	474	9,089	699	8,088	1,173	17,177
1971	487	9,497	770	9,372	1,257	18,869
1972	543	10,622	900	10,412	1,444	21,034
1973	582	11,863	999	11,687	1,581	23,550
1974	645	13,636	1,090	13,658	1,735	27,294
1975	723	15,149	1,378	16,575	2,101	31,724

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1962-63 through 1977-78 (New York, N.Y.: annually), pp. 42-43.
NOTE: The category "Insurance companies" includes loss of income benefit payments.

TABLE III-20. MARRIAGES IN MICHIGAN, BY ORDER OF MARRIAGE AND AGE OF BRIDE AND GROOM: 1977

Age	Bride, order of marriage						Groom, order of marriage					
	First	Second	Third	Fourth or more	Not stated	Total	First	Second	Third	Fourth or more	Not stated	Total
Under 15	25	0	0	0	1	26	0	0	0	0	0	0
15	179	0	0	0	7	186	2	0	0	0	0	2
16	1,969	2	0	0	1	1,972	51	0	0	0	1	52
17	3,494	11	0	0	1	3,506	457	0	0	0	3	460
18	7,910	79	2	0	2	7,993	3,364	6	0	0	2	3,372
19	8,764	202	3	0	2	8,971	5,607	16	1	1	3	5,628
20-24	28,893	4,224	181	14	5	33,317	32,269	2,224	58	1	6	34,558
25-29	6,348	5,709	741	85	2	12,885	11,706	5,764	476	30	1	17,977
30-34	1,377	3,785	871	149	0	6,182	2,653	4,753	919	105	1	8,431
35-39	385	2,203	716	195	0	3,499	747	2,990	822	137	1	4,697
40-44	173	1,402	558	162	1	2,296	324	1,892	680	153	0	3,049
45-49	118	1,097	424	140	0	1,779	198	1,565	545	160	0	2,468
50-54	78	811	315	98	0	1,302	141	1,284	443	109	0	1,977
55-59	56	559	216	62	0	893	97	804	266	102	0	1,269
60-64	31	394	123	35	0	583	64	607	204	48	0	923
65-69	21	255	117	23	0	416	39	383	111	41	0	574
70-74	7	125	50	10	0	192	9	244	80	23	0	356
75 and over	4	52	29	4	0	89	8	197	75	13	0	293
Not stated	0	1	0	0	0	1	1	0	1	0	0	2
TOTAL	59,832	20,911	4,346	977	22	86,088	57,737	22,729	4,681	923	18	86,088

SOURCE: Michigan Department of Public Health, special release.

TABLE III-28. MEDICAL FACILITIES IN MICHIGAN, BY COUNTY: 1979

County	Hospital[a]		Nursing care facilities		Homes for the aged	
	Number	Beds	Number	Beds	Number	Beds
Alcona	0	0	2	87	0	0
Alger	1	40	1	48	0	0
Allegan	3	158	6	555	1	22
Alpena	1	141	2	153	0	0
Antrim	0	0	1	113	0	0
Arenac	1	81	1	44	0	0
Baraga	1	67	1	61	1	46
Barry	1	99	2	251	1	22
Bay	3	522	6	490	1	17
Benzie	1	40	1	42	0	0
Berrien	6	889	10	860	8	186
Branch	1	158	2	283	1	32
Calhoun	7	877	8	778	3	245
Cass	1	59	2	230	0	0
Charlevoix	2	47	1	73	0	0
Cheboygan	1	129	1	50	0	0
Chippewa	1	192	2	168	1	32
Clare	1	66	2	200	0	0
Clinton	1	76	3	119	0	0
Crawford	1	106	1	18	0	0
Delta	1	127	3	239	3	71
Dickinson	2	131	3	209	0	0
Eaton	2	90	4	399	1	25
Emmet	1	253	2	211	1	70
Genesee	7	2,219	17	1,804	5	298
Gladwin	1	42	1	60	0	0
Gogebic	1	72	3	215	1	52
Grand Traverse	2	360	4	520	0	0
Gratiot	1	136	7	552	1	205
Hillsdale	1	87	2	241	1	74
Houghton	2	232	4	338	2	79
Huron	3	217	4	177	1	16
Ingham	7	1,368	9	1,128	2	337
Ionia	2	133	2	243	0	0
Iosco	1	62	1	155	0	0
Iron	2	73	3	249	2	26
Isabella	1	145	3	309	0	0
Jackson	2	539	9	830	3	98
Kalamazoo	3	947	12	1,259	2	194
Kalkaska	1	21	0	0	0	0
Kent	8	2,318	17	2,624	15	2,215
Keweenaw	0	0	0	0	0	0
Lake	0	0	0	0	0	0

TABLE III-28. MEDICAL FACILITIES IN MICHIGAN, BY COUNTY: 1979 (cont.)

County	Hospital[a]		Nursing care facilities		Homes for the aged	
	Number	Beds	Number	Beds	Number	Beds
Lapeer	1	166	2	253	1	20
Leelanau	1	94	2	86	0	0
Lenawee	5	419	4	375	2	67
Livingston	2	198	2	321	0	0
Luce	1	74	2	61	0	0
Mackinac	2	22	1	36	0	0
Macomb	9	1,595	17	2,574	4	486
Manistee	2	119	2	223	0	0
Marquette	2	444	4	353	2	63
Mason	1	99	2	202	0	0
Mecosta	2	110	1	126	0	0
Menominee	1	84	3	265	0	0
Midland	1	289	4	350	1	30
Missaukee	0	0	0	0	0	0
Monroe	1	222	5	696	0	0
Montcalm	5	396	3	188	1	20
Montmorency	0	0	0	0	0	0
Muskegon	4	748	11	967	4	246
Newaygo	2	119	2	245	0	0
Oakland	11	3,603	36	4,347	6	261
Oceana	2	73	1	113	0	0
Ogemaw	1	92	2	231	0	0
Ontonagon	2	59	2	102	0	0
Osceola	1	100	1	50	0	0
Oscoda	0	0	1	33	0	0
Otsego	1	76	2	154	1	19
Ottawa	3	376	10	970	4	404
Presque Isle	2	111	1	47	0	0
Roscommon	0	0	1	49	0	0
Saginaw	5	1,508	11	1,064	5	140
St. Clair	4	443	4	540	1	40
St. Joseph	2	166	3	269	1	5
Sanilac	3	165	2	105	0	0
Schoolcraft	1	55	1	75	0	0
Shiawassee	1	272	2	226	1	56
Tuscola	2	115	3	278	1	22
Van Buren	2	196	5	406	1	27
Washtenaw	6	1,798	10	1,094	5	374
Wayne, other than Detroit	18	4,427	45	5,715	8	1,079
Detroit	29	8,820	61	7,630	25	1,837
Wexford	1	175	1	167	0	0
TOTAL	224	41,147	448	47,371	131	9,558

SOURCE: Michigan Department of Public Health, January 1979 Directory of Hospitals, Nursing Care Facilities, and Homes for the Aged (Lansing: 1979).
a. Excludes federal hospitals and hospitals licensed by the Department of Mental Health.

TABLE III-29. NUMBER OF LICENSED PHYSICIANS IN MICHIGAN, BY COUNTY: 23 AUGUST 1978

County	Physicians		County	Physicians	
	Medical	Osteopathic		Medical	Osteopathic
Alcona	4	0	Lapeer	25	28
Alger	5	0	Leelanau	7	2
Allegan	35	4	Lenawee	70	7
Alpena	39	1	Livingston	39	13
Antrim	6	4	Luce	15	0
Arenac	3	2	Mackinac	2	3
Baraga	4	0	Macomb	518	229
Barry	21	5	Manistee	19	7
Bay	104	26	Marquette	99	3
Benzie	6	1	Mason	29	2
Berrien	178	19	Mecosta	18	11
Branch	28	8	Menominee	8	1
Calhoun	153	41	Midland	100	4
Cass	16	5	Missaukee	4	1
Charlevoix	14	3	Monroe	59	13
Cheboygan	8	8	Montcalm	23	24
Chippewa	20	4	Montmorency	0	2
Clare	3	7	Muskegon	149	52
Clinton	15	8	Newaygo	19	6
Crawford	11	0	Oakland	2,171	456
Delta	34	0	Oceana	10	4
Dickinson	30	1	Ogemaw	10	5
Eaton	18	5	Ontonagon	6	1
Emmet	83	0	Osceola	7	2
Genesee	498	187	Oscoda	2	1
Gladwin	5	4	Otsego	17	3
Gogebic	14	0	Ottawa	114	13
Grand Traverse	123	33	Presque Isle	2	3
Gratiot	34	9	Roscommon	7	4
Hillsdale	14	5	Saginaw	278	51
Houghton	27	0	Sanilac	15	6
Huron	22	8	Schoolcraft	7	0
Ingham	499	145	Shiawassee	40	10
Ionia	21	12	St. Clair	111	10
Iosco	13	4	St. Joseph	40	8
Iron	10	4	Tuscola	18	13
Isabella	41	7	Van Buren	40	1
Jackson	127	24	Washtenaw	1,291	21
Kalamazoo	439	12	Wayne	3,714	662
Kalkaska	4	1	Wexford	31	3
Kent	701	105	Out of state	3,919	582
Keweenaw	0	0	Out of country	297	6
Lake	9	0	Total	16,787	2,985

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE III-30. NUMBER OF LICENSED PODIATRISTS AND PHARMACISTS IN MICHIGAN, BY COUNTY: 23 AUGUST 1978

County	Podiatrists	Pharmacists	County	Podiatrists	Pharmacists
Alcona	0	6	Lapeer	1	35
Alger	0	5	Leelanau	0	7
Allegan	0	40	Lenawee	1	50
Alpena	1	18	Livingston	1	54
Antrim	0	10	Luce	0	8
Arenac	0	4	Mackinac	0	7
Baraga	0	6	Macomb	59	425
Barry	0	18	Manistee	1	19
Bay	4	90	Marquette	2	32
Benzie	0	14	Mason	1	20
Berrien	4	109	Mecosta	0	45
Branch	1	23	Menominee	1	8
Calhoun	5	92	Midland	2	48
Cass	0	20	Missaukee	0	4
Charlevoix	0	18	Monroe	3	46
Cheboygan	0	17	Montcalm	1	28
Chippewa	0	17	Montmorency	0	7
Clare	0	15	Muskegon	6	112
Clinton	0	20	Newaygo	0	17
Crawford	1	5	Oakland	79	1,304
Delta	1	24	Oceana	1	8
Dickinson	1	17	Ogemaw	0	16
Eaton	1	40	Ontonagon	0	5
Emmet	1	27	Osceola	0	14
Genesee	17	305	Oscoda	0	7
Gladwin	0	12	Otsego	0	18
Gogebic	2	10	Ottawa	4	85
Grand Traverse	4	73	Presque Isle	0	8
Gratiot	1	20	Roscommon	0	17
Hillsdale	2	15	Saginaw	6	156
Houghton	1	22	Sanilac	0	20
Huron	0	24	Schoolcraft	0	6
Ingham	7	198	Shiawassee	1	40
Ionia	0	29	St. Clair	2	88
Iosco	1	17	St. Joseph	2	27
Iron	0	11	Tuscola	0	32
Isabella	1	26	Van Buren	0	33
Jackson	4	89	Washtenaw	5	259
Kalamazoo	7	199	Wayne	128	1,127
Kalkaska	0	5	Wexford	1	27
Kent	15	318	Out of state	37	1,201
Keweenaw	0	0	Out of country	3	16
Lake	0	4	Michigan	431	7,518

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE III-31. NUMBER OF PROFESSIONAL NURSING LICENSEES IN MICHIGAN, BY COUNTY: 24 AUGUST 1978

County	Practical	Registered	County	Practical	Registered
Alcona	27	34	Lapeer	267	347
Alger	29	50	Leelanau	51	92
Allegan	222	324	Lenawee	341	462
Alpena	212	175	Livingston	274	554
Antrim	49	82	Luce	52	80
Arenac	61	52	Mackinac	30	55
Baraga	51	56	Macomb	1,581	4,098
Barry	116	234	Manistee	125	123
Bay	608	777	Marquette	400	662
Benzie	61	70	Mason	118	134
Berrien	362	1,106	Mecosta	117	162
Branch	177	201	Menominee	96	115
Calhoun	627	1,026	Midland	233	548
Cass	85	163	Missaukee	39	43
Charlevoix	65	161	Monroe	267	445
Cheboygan	54	110	Montcalm	268	230
Chippewa	131	193	Montmorency	25	34
Clare	111	92	Muskegon	726	1,000
Clinton	129	217	Newaygo	98	141
Crawford	54	57	Oakland	2,489	7,950
Delta	229	198	Oceana	82	112
Dickinson	191	211	Ogemaw	83	66
Eaton	200	344	Ontonagon	63	77
Emmet	123	257	Osceola	108	81
Genesee	1,915	3,004	Oscoda	25	40
Gladwin	83	77	Otsego	48	99
Gogebic	120	114	Ottawa	944	1,077
Grand Traverse	407	652	Presque Isle	61	57
Gratiot	273	168	Roscommon	58	68
Hillsdale	137	156	Saginaw	747	1,521
Houghton	96	286	Sanilac	117	193
Huron	130	225	Schoolcraft	47	55
Ingham	853	2,253	Shiawassee	225	372
Ionia	132	196	St. Clair	482	775
Iosco	74	128	St. Joseph	183	258
Iron	89	79	Tuscola	148	272
Isabella	212	205	Van Buren	216	303
Jackson	548	914	Washtenaw	843	3,017
Kalamazoo	828	1,879	Wayne	6,653	12,984
Kalkaska	32	37	Wexford	155	147
Kent	1,933	3,371	Out of state	2,658	12,194
Keweenaw	5	5	Out of country	107	1,213
Lake	16	26	Total	33,507	72,221

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE III-32. NUMBER OF LICENSED CHIROPRACTORS IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Chiropractors	County	Chiropractors
Alcona	0	Lapeer	5
Alger	0	Leelanau	1
Allegan	8	Lenawee	14
Alpena	3	Livingston	7
Antrim	1	Luce	1
Arenac	1	Mackinac	0
Baraga	1	Macomb	53
Barry	3	Manistee	3
Bay	8	Marquette	5
Benzie	0	Mason	4
Berrien	28	Mecosta	5
Branch	6	Menominee	4
Calhoun	17	Midland	6
Cass	2	Missaukee	0
Charlevoix	4	Monroe	17
Cheboygan	2	Montcalm	4
Chippewa	2	Montmorency	0
Clare	4	Muskegon	16
Clinton	2	Newaygo	5
Crawford	1	Oakland	75
Delta	5	Oceana	4
Dickinson	4	Ogemaw	3
Eaton	12	Ontonagon	0
Emmet	4	Osceola	3
Genesee	50	Oscoda	0
Gladwin	2	Otsego	5
Gogebic	5	Ottawa	23
Grand Traverse	10	Presque Isle	3
Gratiot	6	Roscommon	2
Hillsdale	7	Saginaw	11
Houghton	2	Sanilac	4
Huron	4	Schoolcraft	1
Ingham	28	Shiawassee	4
Ionia	8	St. Clair	21
Iosco	4	St. Joseph	14
Iron	2	Tuscola	7
Isabella	2	Van Buren	5
Jackson	18	Washtenaw	19
Kalamazoo	22	Wayne	186
Kalkaska	2	Wexford	4
Kent	61	Out of state	204
Keweenaw	0	Out of country	13
Lake	0	Total	1,112

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE III-33. NUMBER OF LICENSED DENTISTS AND DENTAL HYGIENISTS IN MICHIGAN, BY COUNTY: 30 APRIL 1979

County	Dentists	Hygienists	County	Dentists	Hygienists
Alcona	2	2	Lake	5	1
Alger	4	3	Lapeer	21	25
Allegan	20	10	Leelanau	5	5
Alpena	19	9	Lenawee	40	25
Antrim	9	3	Livingston	46	22
Arenac	5	3	Luce	4	--
Baraga	3	1	Mackinac	4	3
Barry	12	8	Macomb	419	214
Bay	53	27	Manistee	13	8
Benzie	3	2	Marquette	40	16
Berrien	83	40	Mason	11	6
Branch	15	5	Mecosta	15	24
Calhoun	70	63	Menominee	9	4
Cass	11	9	Midland	42	33
Charlevoix	10	5	Missaukee	2	--
Cheboygan	7	2	Monroe	37	19
Chippewa	14	4	Montcalm	18	8
Clare	7	3	Montmorency	1	1
Clinton	18	12	Muskegon	76	33
Crawford	5	--	Newaygo	15	4
Delta	20	8	Oakland	840	656
Dickinson	16	6	Oceana	12	6
Eaton	20	22	Ogemaw	4	4
Emmet	19	16	Ontonagon	3	1
Genesee	214	223	Osceola	5	3
Gladwin	5	5	Oscoda	1	1
Gogebic	9	2	Otsego	11	9
Grand Traverse	53	38	Ottawa	81	46
Gratiot	14	10	Presque Isle	5	--
Hillsdale	13	9	Roscommon	7	2
Houghton	16	13	Saginaw	121	107
Huron	17	6	Sanilac	11	--
Ingham	193	173	Schoolcraft	4	--
Ionia	20	5	Shiawassee	25	15
Iosco	13	3	St. Clair	59	35
Iron	11	2	St. Joseph	18	7
Isabella	15	15	Tuscola	16	9
Jackson	72	43	Van Buren	25	20
Kalamazoo	142	129	Washtenaw	333	175
Kalkaska	2	3	Wayne	1,234	549
Kent	283	220	Wexford	14	9
Keweenaw	--	--	Out of state	1,095	736
			Out of country	33	27
			Michigan	6,317	4,030

SOURCE Michigan Department of Licensing and Regulation, special release.

TABLE III-34. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF NON-SUPERVISORY EMPLOYEES IN THE DETROIT STATISTICAL AREA IN SELECTED OCCUPATIONS IN NURSING HOME AND RELATED FACILITIES: MAY 1973 AND MAY 1976

Occupation	May 1973		May 1976	
	Number of workers[a]	Average hourly earnings[b]	Number of workers[a]	Average hourly earnings[b]
Nursing employees				
General duty nurses	613	$ 4.50	865	$ 5.17
Full time	235	4.66	396	5.18
Part time	378	4.41	469	5.16
Licensed practical nurses	1,058	3.66	1,033	4.24
Full time	584	3.74	615	4.29
Part time	474	3.56	418	4.17
Nursing aids (orderlies)	6,511	1.91	6,452	2.46
Full time	5,294	1.93	5,316	2.47
Part time	1,217	1.82	1,136	2.41
Professional and technical employees, except nurses				
Dieticians	12	5.56	7	8.10
Physical therapists	9	6.60	6	10.12
Service and maintenance employees				
Cooks	438	2.23	4[illegible]	2.98
Full time	373	2.23	357	3.02
Part time	65	2.19	57	2.68
Grounds keepers	30	2.18	11	3.00
Full time	14	2.28	7	2.93
Part time	16	2.08	n.a.	n.a.
Housekeepers	94	2.49	87	3.59
Full time	85	2.56	87	3.59
Food service helpers	1,187	1.90	1,527	2.44
Full time	769	1.94	986	2.47
Part time	418	1.82	541	2.38
Laundry workers	307	1.99	291	2.56
Full time	228	2.02	238	2.59
Part time	79	1.90	53	2.44
Cleaners, nursing home	950	1.95	1,100	2.47
Full time	800	1.96	951	2.48
Part time	150	1.88	149	2.42
Maintenance workers, bldg.	210	2.63	229	3.30
Full time	139	2.69	160	3.44
Part time	71	2.50	69	2.98

SOURCE: Bureau of Labor Statistics, Industry Wage Survey: Nursing Homes and Related Facilities, May 1973, Bulletin 1855 (Washington, D.C.: 1975), Table 11; and Bureau of Labor Statistics, Industry Wage Survey: Nursing Homes and Related Facilities, May 1976, Bulletin 1964 (Washington, D.C.: 1977), Table 11.

a. Part-time employees regularly work fewer than 35 hours a week.

b. Excludes premium pay for overtime and for work on weekends, holidays, and late shifts, as well as the value of room, board, or other perquisites, if provided.

TABLE III-35. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN NONGOVERMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Professional and technical employees				
Physicians				
Interns	—	$ —	422	$ 6.34
Men	—	—	370	6.38
Women	—	—	52	6.02
Residents	—	—	855	6.92
Men	—	—	772	6.97
Women	—	—	83	6.46
Registered professional nurses				
Directors of nursing	53	8.99	52	10.39
Supervisors of nursing	299	6.18	337	7.46
Head nurses	617	5.61	629	6.89
Clinical specialists	—	—	34	6.69
Medical-surgical	—	—	—	—
Nurse anesthetists	—	—	111	8.53
Men	—	—	23	8.60
Women	—	—	88	8.52
General duty nurses	3,969	4.89	5,084	5.95
Nursing instructors	163	5.79	165	7.13
Other professional and technical employees				
Computer operators,				
Class B	23	3.80	22	4.59
Men	—	—	14	4.53
Women	—	—	8	4.69
Computer programmers,				
Class A	—	—	9	7.06
Men	—	—	9	7.06
Computer programmers,				
Class B	12	4.95	16	6.21
Men	—	—	8	6.09
Women	—	—	8	6.34
Computer systems analysts,				
Class A	—	—	7	8.18
Men	—	—	7	8.18
Computer systems analysts,				
Class B	—	—	—	—
Men	—	—	—	—
Dieticians	121	5.54	108	6.54
Laboratory technicians	—	—	308	4.59
Men	—	—	73	4.48
Women	—	—	235	4.63
Licensed practical nurses	2,726	3.84	2,409	4.74
Medical librarians	17	4.92	22	5.33
Women	—	—	20	5.29
Medical record administrators	60	5.80	33	8.15
Women	—	—	33	8.15

TABLE III-35. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN NONGOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other professional and technical employees (cont.)				
Medical record technicians	--	$ —	92	$ 4.63
Women	--	--	92	4.63
Accredited	37	6.41	50	5.08
Women	--	—	50	5.08
Nonregistered, nonaccredited	—	--	42	4.09
Women	--	--	42	4.09
Medical social workers	65	5.10	87	6.34
Men	--	—	13	6.29
Women	--	--	74	6.35
Medical technologists	789	5.08	875	6.18
Men	146	5.13	186	5.98
Women	643	5.06	689	6.23
Occupational therapists	31	4.99	21	6.04
Women	—	--	19	6.01
Pharmacists	202	7.38	260	8.97
Men	155	7.37	206	8.99
Women	47	7.42	54	8.91
Physical therapists	87	5.39	64	6.45
Men	17	5.99	23	6.62
Women	70	5.25	41	6.36
Purchasing agents	40	6.33	49	6.94
Men	--	—	34	6.86
Women	--	--	15	7.14
Radiologic technologists (x-ray)	372	4.24	411	5.31
Men	113	4.32	140	5.30
Women	259	4.20	271	5.32
Radiologic technologists, chief (x-ray)	34	6.81	41	7.32
Men	—	--	32	7.62
Women	—	--	--	—
Respiratory therapists	235	3.83	427	4.55
Men	92	4.19	152	4.58
Women	143	3.60	275	4.53
Registered	--	—	62	5.17
Men	--	--	20	4.97
Women	—	—	42	5.26
Certified	—	—	129	4.86
Men	--	--	63	4.87
Women	--	--	66	4.85
Nonregistered, noncertified	—	—	236	p4.22
Men	—	—	69	4.20
Women	—	—	167	4.22
Speech therapists	—	--	--	—
Women	--	--	--	—

TABLE III-35. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN NONGOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other professional and technical employees (cont.)				
Surgical technicians	373	$ 3.49	305	$ 4.40
Men	56	3.45	56	4.24
Women	317	3.49	249	4.44
Certified	--	--	84	4.37
Men	--	--	13	4.06
Women	--	--	71	4.42
Noncertified	--	--	221	4.42
Men	--	--	43	4.29
Women	--	--	178	4.45
Nonprofessional employees				
Office clerical employees				
Clerks, admitting	--	--	372	3.73
Men	--	--	35	3.99
Women	--	--	337	3.70
Clerks, payroll	63	3.51	75	4.32
Keypunch operators, Class A	63	3.33	31	4.29
Keypunch operators, Class B	87	3.14	105	4.00
Women	--	--	105	4.00
Stenographers, general	93	3.53	--	--
Stenographers, senior	141	3.45	18	4.57
Switchboard operators	248	3.04	222	3.75
Women	--	--	222	3.75
Switchboard operators, receptionists	71	3.09	--	--
Transcribing, machine operators, technical	290	3.50	206	4.49
Other nonprofessional employees				
Cleaners, hospital	2,755	2.76	2,982	3.44
Men	797	2.86	817	3.60
Women	1,958	2.72	2,165	3.38
Dishwashers, machine	87	2.77	55	3.78
Men	28	2.69	48	3.83
Women	59	2.81	7	3.42
Electricians, maintenance	41	5.45	48	6.66
Engineers, stationary	139	4.97	156	5.95
Finishers, flatwork, machine	139	2.79	52	3.53
Men	--	--	--	--
Women	--	--	42	3.25

TABLE III-27. NUMBER OF PERSONS UNDER AGE 65 COVERED BY HOSPITAL, SURGICAL, AND REGULAR MEDICAL EXPENSE COVERAGE IN MICHIGAN AND THE UNITED STATES, BY TYPE: 31 DECEMBER 1966-1976

(In thousands of persons)

Year	Hospital expense		Surgical expense		Regular medical expense		Major medical expense[a]	
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1966	7,242	148,589	6,725	137,448	5,967	110,754	--	55,475
1967	7,521	153,768	7,060	142,828	6,529	116,665	--	60,588
1968	7,897	159,335	7,444	147,252	6,822	122,054	--	65,040
1969	8,226	164,383	7,868	153,304	7,453	127,227	--	70,410
1970	8,226	164,210	7,868	153,352	7,453	132,349	--	76,164
1971	7,842	167,588	7,370	154,923	6,945	133,065	--	76,551
1972	8,017	167,019	7,560	155,173	6,899	139,704	2,634	78,154
1973	7,733	156,595	7,446	149,409	7,117	137,896	2,809	86,223
1974	8,017	161,600	7,979	156,800	7,981	149,300	3,082	89,300
1975	8,069	165,400	7,978	158,500	7,835	152,200	3,262	90,100
1976	8,011	164,000	7,798	156,900	7,823	152,900	3,303	91,300

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1956-57 through 1977-78 (New York, N.Y.: annually), pp. 28-29.

NOTE: The data refer to the net total of people protected, that is, duplication among persons protected by more than one kind of insuring organization or more than one insurance company policy, providing the same type of coverage has been eliminated. Data presented for those employed in Michigan.

a. Michigan data not available prior to 1972.

TABLE III-35. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN NONGOVERMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other nonprofessional employees (cont.)				
Food service supervisors	172	$ 3.69	209	4.62
Men	--	--	20	4.88
Women	165	3.68	189	4.59
Food service helpers	1,679	2.65	1,956	3.37
Men	243	2.70	198	3.28
Women	1,436	2.64	1,758	3.38
Housekeepers, chief	54	5.06	45	6.23
Men	7	5.31	13	6.30
Women	47	5.01	32	6.20
Nursing aids	5,546	2.79	5,428	3.52
Men	590	2.84	459	3.42
Women	4,956	2.79	4,969	3.53
Ward clerks	1,359	2.95	1,499	3.72
Women	--	--	1,499	3.72
Washers, machine	40	3.28	12	4.07
Men	--	--	12	4.07

SOURCE: Bureau of Labor Statistics, Industry Wage Survey: Hospitals, August 1972, Bulletin 1829 (Washington, D.C.: 1974), Table 2; and Bureau of Labor Statistics, Industry Wage Survey: Hospitals, August 1975-January 1976, Bulletin 1949 (Washington D.C.: 1977), Table 2.
NOTE: In this study the Detroit area consists of Lapeer, Livingston, Macomb, Oakland, St. Clair, and Wayne counties.

a. Excludes premium pay for overtime and for work on weekends, holidays, and late shifts, as well as the value of room, board, or other perquisites provided in addition to cash wages.

TABLE III-36. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN STATE AND LOCAL GOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Professional and technical employees				
Physicians	--	$ --	--	$ --
Interns	--	--	--	--
Men	--	--	--	--
Women	--	--	218	6.81
Residents	--	--	187	6.63
Men	--	--	31	7.87
Women				
Registered professional nurses				
Directors of nursing	12	9.44	11	10.49
Supervisors of nursing	111	6.30	114	7.33
Head nurses	162	5.81	238	6.70
Clinical specialists	--	--	--	--
Medical-surgical	--	--	--	--
Nurse anesthetists	--	--	50	8.33
Men	--	--	--	--
Women	--	--	47	8.34
General duty nurses	534	5.23	987	6.13
Nursing instructors	29	6.19	26	6.78
Other professional and technical employees				
Computer operators,				
Class B	--	--	--	--
Men	--	--	--	--
Women	--	--	--	--
Computer programmers,				
Class A	--	--	--	--
Men	--	--	--	--
Computer programmers,				
Class B	--	--	--	--
Men	--	--	--	--
Women	--	--	--	--
Computer systems analysts,				
Class A	--	--	--	--
Men	--	--	--	--
Computer systems analysts,				
Class B	--	--	--	--
Men	--	--	--	--
Dieticians	18	6.16	23	6.81
Laboratory technicians	--	--	33	4.76
Men	--	--	--	--
Women	--	--	26	4.63
Licensed practical nurses	816	4.29	831	5.09
Medical librarians	--	--	6	6.29
Women	--	--	6	6.29

TABLE III-36. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS IN FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN STATE AND LOCAL GOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other professional and technical employees (cont.)				
Medical record administrators	12	$ 6.38	9	$ 7.59
Women	—	—	9	7.59
Medican record technicians	—	—	15	5.39
Women	—	—	12	5.17
Accredited	—	—	—	—
Women	—	—	—	—
Nonregistered, nonaccredited	—	—	—	—
Women	—	—	—	—
Medical social workers	20	5.78	28	6.39
Men	—	—	—	—
Women	—	—	—	—
Medical technologists	137	5.68	187	6.56
Men	15	5.50	—	—
Women	122	5.70	—	—
Occupational therapists	40	5.83	43	6.39
Women	—	—	39	6.46
Pharmacists	33	7.55	62	8.60
Men	27	7.48	53	8.61
Women	—	—	9	8.57
Physical therapists	19	5.60	—	—
Men	—	—	—	—
Women	—	—	—	—
Purchasing agents	—	—	6	9.08
Men	—	—	6	9.08
Women	—	—	—	—
Radiologic technologists, (x-ray)	85	4.95	96	5.73
Men	46	5.08	—	—
Women	39	4.81	—	—
Radiologic technologists, chief (x-ray)	9	6.74	7	8.27
Men	—	—	7	8.27
Women	—	—	—	—
Respiratory therapists	32	4.39	55	5.07
Men	—	—	24	5.27
Women	—	—	31	4.91
Registered	—	—	—	—
Men	—	—	—	—
Women	—	—	—	—
Certified	—	—	—	—
Men	—	—	10	5.52
Women	—	—	—	—
Nonregistered, noncertified	—	—	35	4.69
Men	—	—	12	4.93
Women	—	—	—	—

TABLE III-36. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS IN FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN STATE AND LOCAL GOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other professional and technical employees (cont.)				
Speech therapists	--	$ --	--	$ --
Women	--	--	--	--
Surgical technicians	25	4.60	43	5.38
Men	--	--	18	5.56
Women	--	--	25	5.26
Certified	--	--	--	--
Men	--	--	--	--
Women	--	--	--	--
Noncertified	--	--	30	5.31
Men	--	--	--	--
Women	--	--	23	5.30
Nonprofessional employees				
Office clerical employees				
Clerks, admitting	--	--	50	4.58
Men	--	--	--	--
Women	--	--	49	4.57
Clerks, payroll	23	4.38	27	5.51
Keypunch operators, Class A	--	--	--	--
Keypunch operators, Class B	--	--	--	--
Women	--	--	--	--
Stenographers, general	23	4.04	32	4.76
Stenographers, senior	48	4.69	57	5.30
Switchboard operators	57	3.79	58	4.73
Women	--	--	58	4.73
Switchboard operator, receptionists	--	--	--	--
Transcribing machine operators, technical	75	3.95	69	4.91
Other nonprofessional employees				
Cleaners, hospital	600	3.71	656	4.30
Men	243	4.00	196	4.69
Women	357	3.51	460	4.13
Dishwashers, machine	--	--	--	--
Men	--	--	--	--
Women	--	--	--	--
Electricians, maintenance	23	7.33	37	7.59
Engineers, stationary	32	5.43	43	6.41
Finishers, flatwork, machine	60	4.01	--	--
Men	--	--	--	--
Women	--	--	--	--

TABLE III-36. NUMBER AND AVERAGE STRAIGHT-TIME EARNINGS IN FULL-TIME EMPLOYEES IN SELECTED OCCUPATIONS IN STATE AND LOCAL GOVERNMENT HOSPITALS IN THE DETROIT AREA: AUGUST 1972 AND AUGUST 1975-JANUARY 1976 (cont.)

Occupation and sex	August 1972		August 1975-January 1976	
	Number of employees	Average hourly earnings[a]	Number of employees	Average hourly earnings[a]
Other nonprofessional employees (cont.)				
Food service supervisors	39	$ 4.78	44	$ 5.01
Men	--	--	--	--
Women	27	4.58	40	4.93
Food service helpers	484	3.46	550	4.32
Men	143	3.61	110	4.82
Women	341	3.40	440	4.19
Housekeepers, chief	13	5.94	11	6.91
Men	--	--	--	--
Women	--	--	7	7.23
Nursing aids	925	3.69	931	4.31
Men	214	4.01	140	4.82
Women	711	3.59	791	4.22
Ward clerks	169	3.31	269	4.35
Women	--	--	268	4.35
Washers, machine	--	--	--	--
Men	--	--	--	--

SOURCE: Bureau of Labor Statistics, Industry Wage Survey, Hospitals, August 1972, Bulletin 1829 (Washington, D.C.: 1974), Table 3; and Bureau of Labor Statistics Industry Wage Survey: Hospitals, August 1975-January 1976, Bulletin 1949 (Washington, D.C.: 1977), Table 3.

a. Excludes premium pay for overtime and for work on weekends, holidays, and late shifts, as well as the value of room, board, or other perquisites provided in addition to wages.

IV. EDUCATION

Data pertaining to education levels, taken from the Census of Population, are estimates based on a 20 percent sample of households and persons living in group quarters. Enrollment data from the 1970 Census of Population are estimated from a 15 percent sample. Ratio estimation procedures were employed to derive these statistics.

The Michigan Department of Education's Michigan Educational Statistics and Fact Book on Higher Education are the sources of most data relating to the educational system in this state. The department publishes numerous other items, among them Bulletins 1012 and 1013. Bulletin 1012 is the source of Table IV-27.

Many statistics about education for states and the nation are published by the U.S. Office of Education. Data indicating federal support for education are compiled by the Community Services Administration, Executive Office of the President. For the state of Michigan these data appear as part of Table X-15 in the chapter on governmental finance and employment.

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TABLE IV-2. YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD OR OVER IN MICHIGAN, BY SEX, FOR WHITE, NEGRO, AND PERSONS OF SPANISH LANGUAGE: CENSUS 1970

Sex and years completed	White		Negro	Total
	Spanish	Total		
Male	24,357	1,977,334	216,655	2,203,979
No school years completed	1,540	19,967	4,257	24,460
Elementary:				
1 - 4 years	2,284	46,583	18,976	66,026
5 - 6 years	2,617	77,614	21,026	99,235
7 years	1,234	79,062	13,305	92,848
8 years	2,404	289,950	25,490	315,603
High school:				
1 - 3 years	4,592	414,154	62,239	478,243
4 years	5,263	599,784	49,145	650,381
College:				
1 - 3 years	2,027	203,168	14,296	218,191
4 years	933	119,404	3,891	124,012
5 or more years	1,463	128,648	4,030	134,980
Median school years completed	10.4	12.1	10.2	12.0
Female	23,206	2,137,869	241,542	2,390,482
No school years completed	1,666	24,298	3,698	28,310
Elementary:				
1 - 4 years	2,005	40,882	13,112	54,438
5 - 6 years	2,048	71,411	18,249	90,353
7 years	1,061	65,754	12,681	78,834
8 years	2,228	278,527	26,185	305,828
High school:				
1 - 3 years	4,715	459,539	74,578	536,237
4 years	6,237	826,506	66,949	896,298
College:				
1 - 3 years	1,788	208,658	16,686	226,261
4 years	738	104,436	5,357	110,829
5 or more years	720	57,858	4,047	63,094
Median school years completed	10.7	12.2	10.9	12.1

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 51.

TABLE IV-1. EDUCATIONAL ATTAINMENT OF PERSONS 25 YEARS OLD AND OVER IN MICHIGAN AND THE UNITED STATES, BY RACE: CENSUS 1960 AND 1970

Item	1960			1970		
	White	Black[a]	Total	White	Black[a]	Total
			Michigan			
Percentage:						
No school years completed	1.4	2.2	1.5	2.1	6.9	2.6
Elementary:						
1 - 4 years	3.7	10.9	4.3	2.1	6.9	2.6
5 and 6 years	5.3	11.9	5.9	3.6	8.5	4.1
7 years	5.6	8.3	5.8	3.5	5.6	3.7
8 years	19.7	16.1	19.4	13.8	11.3	13.5
9 - 11 years	21.9	25.4	22.2	21.2	29.4	22.1
High school	26.9	16.8	26.0	34.7	25.1	33.7
College:						
1 - 3 years	8.3	5.5	8.1	10.0	6.8	9.7
4 years or more	7.2	2.8	6.7	9.9	4.7	9.4
Median school years completed	11.0	9.1	10.8	12.1	10.6	12.1
			United States			
Percentage:						
No school years completed	1.9	5.6	2.3	1.4	4.1	1.6
Elementary:						
1 - 4 years	4.8	17.8	6.1	3.1	11.5	3.9
5 and 6 years	6.7	14.6	7.5	5.0	11.8	5.7
7 years	6.1	8.8	6.4	4.1	6.4	4.4
8 years	18.1	12.8	17.5	13.1	10.4	12.8
9 - 11 years	19.3	18.7	19.2	18.8	22.8	19.4
High school	25.8	13.8	24.6	32.2	21.4	31.1
College:						
1 - 3 years	9.3	4.4	8.8	11.1	6.4	10.6
4 years or more	8.1	3.5	7.7	11.3	4.8	10.7
Median school years completed	10.9	8.2	10.6	12.1	9.7	12.1

SOURCES: Adapted from Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 46; and Bureau of the Census, U.S. Census of Population: 1970, vol. 1, Characteristics of the Population, United States Summary (Washington, D.C.: 1973), Part 1, section 1, Table 75.

a. Includes other racial minorities.

TABLE IV-3. AVERAGE MEAN INCOME IN 1969 OF MALES 18 YEARS OLD AND OVER IN MICHIGAN AND THE UNITED STATES, BY YEARS OF SCHOOL COMPLETED, AGE GROUP, AND RACE: CENSUS 1970

Age group	Years of school completed							
	Elementary school			High school		College		
	Less than 5 years	5 - 7 years	8 years	1 - 3 years	4 years	1 - 3 years	4 years	5 years or more
White, Michigan								
18 - 24	$ 3,204	$ 4,110	$ 4,546	$ 3,699	$ 4,833	$ 3,605	$ 4,794	$ 4,997
25 - 34	6,796	7,387	7,750	8,631	9,628	10,138	11,403	11,616
35 - 44	7,345	8,438	9,214	9,988	11,344	13,492	17,117	19,243
45 - 54	7,441	8,245	9,082	10,155	11,736	14,840	19,850	22,971
55 - 64	6,606	7,159	7,822	9,127	10,750	13,232	19,705	22,100
65 and over	2,908	3,385	3,789	4,876	6,073	7,688	11,812	14,908
TOTAL	4,701	6,003	7,002	8,142	9,267	9,147	14,139	16,531
White, United States								
18 - 24	2,654	3,369	3,815	3,062	3,943	3,057	4,408	4,492
25 - 34	5,249	5,706	6,488	7,377	8,364	8,936	10,822	11,010
35 - 44	5,306	6,695	7,671	8,704	9,912	11,835	15,977	18,168
45 - 54	5,031	6,591	7,587	8,803	10,383	13,096	17,923	21,073
55 - 64	4,517	5,919	6,868	8,090	9,609	12,199	17,274	20,967
65 and over	2,582	3,246	3,765	4,792	5,917	7,497	11,252	13,753
TOTAL	3,807	5,123	6,013	7,013	8,049	8,278	13,153	15,776
Black, Michigan								
18 - 24	3,351	3,562	3,997	3,690	4,752	4,069	5,072	11,784
25 - 34	5,530	5,751	6,233	6,317	7,301	7,951	9,274	10,337
35 - 44	6,168	6,732	7,147	7,372	8,127	8,957	9,741	16,305
45 - 54	5,975	6,950	7,170	7,438	8,041	8,893	10,816	13,944
55 - 64	5,687	6,144	6,373	6,603	7,250	7,617	9,723	14,432
65 and over	2,564	2,824	3,056	3,403	6,160	3,950	4,008	9,857
TOTAL	4,583	5,662	6,130	6,137	6,767	6,941	8,794	13,362

TABLE IV-3. AVERAGE MEAN INCOME IN 1969 OF MALES 18 YEARS OLD AND OVER IN MICHIGAN AND THE UNITED STATES, BY YEARS OF SCHOOL COMPLETED, AGE GROUP, AND RACE: CENSUS 1970 (cont.)

	Years of school completed							
	Elementary school			High school		College		
Age group	Less than 5 years	5 - 7 years	8 years	1 - 3 years	4 years	1 - 3 years	4 years	5 years or more
Black, United States								
18 - 24	$ 2,165	$ 2,444	$ 2,583	$ 2,572	$ 3,439	$ 3,016	$ 4,499	$ 5,636
25 - 34	3,657	4,060	4,572	5,101	6,093	6,880	8,062	9,018
35 - 44	3,824	4,742	5,271	5,814	6,705	7,635	9,250	12,592
45 - 54	3,710	4,749	5,307	5,820	6,639	7,679	9,006	12,026
55 - 64	3,276	4,169	4,751	5,196	5,877	6,668	7,732	11,929
65 and over	1,807	2,251	2,599	2,948	3,572	3,739	4,555	7,934
TOTAL	2,879	3,929	4,470	4,691	5,397	5,785	7,825	11,100
Persons of Spanish Language - Michigan								
18 - 24	3,214	4,575	5,267	4,000	4,988	3,892	4,822	---
25 - 34	6,644	6,871	7,595	7,653	8,411	8,800	10,263	10,875
35 - 44	6,995	7,827	9,132	9,189	10,509	11,601	13,896	24,674
45 - 54	7,329	8,024	9,094	9,356	10,222	14,761	16,330	20,077
55 - 64	6,112	6,739	8,093	7,866	10,352	---	---	---
65 and over	3,256	3,793	4,676	4,566	4,706	---	---	---
TOTAL	5,895	6,846	7,719	6,998	7,900	8,414	11,059	16,614
Persons of Spanish Language - United States								
18 - 24	2,978	3,279	3,505	2,980	3,766	3,283	4,149	4,309
25 - 34	4,567	5,046	5,533	6,238	7,255	7,920	9,555	9,691
35 - 44	4,912	5,815	6,583	7,371	8,372	9,866	13,217	16,497
45 - 54	4,578	5,756	6,549	7,641	8,943	10,819	14,588	18,260
55 - 64	3,894	5,125	6,059	7,108	7,949	9,762	12,323	17,022
65 and over	2,256	3,019	3,524	4,159	4,808	6,676	8,412	10,685
TOTAL	3,925	4,984	5,605	5,672	6,613	7,264	10,825	13,725

SOURCES: Bureau of the Census, U.S. Census of Population: 1970, Detailed Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-D24, Table 197; and Bureau of the Census, U.S. Census of Population: 1970, vol. 1, Characteristics of the Population, United States Summary (Washington, D.C.: 1973), Part 1, section 2, Table 249.

TABLE IV-4. AVERAGE MEAN INCOME IN 1969 OF FEMALES 18 YEARS OLD AND OVER IN MICHIGAN AND THE UNITED STATES, BY YEARS OF SCHOOL COMPLETED, AGE GROUP, AND RACE: CENSUS 1970

Age group	Years of school completed							
	Elementary school			High school		College		
	Less than 5 years	5 - 7 years	8 years	1 - 3 years	4 years	1 - 3 years	4 years	5 years or more
White, Michigan								
18 - 24	$ 2,085	$ 1,924	$ 2,050	$ 1,682	$ 2,824	$ 2,381	$ 4,350	$ 4,485
25 - 34	4,570	2,534	2,852	2,943	3,526	3,991	5,155	6,589
35 - 44	3,195	3,112	3,346	3,562	3,920	4,298	5,321	7,893
45 - 54	3,106	3,283	3,587	3,874	4,488	5,130	6,804	9,397
55 - 64	2,597	2,720	2,956	3,436	4,445	4,983	8,062	9,577
65 and over	1,400	1,586	1,671	2,090	2,867	3,322	4,851	6,743
TOTAL	1,952	2,129	2,408	2,934	3,619	3,519	5,540	7,749
White, United States								
18 - 24	1,873	1,938	1,990	1,705	2,709	2,316	4,018	4,340
25 - 34	2,608	2,492	2,621	2,813	3,454	3,975	5,010	6,221
35 - 44	2,505	2,794	3,011	3,338	3,783	4,263	5,205	7,491
45 - 54	2,433	2,858	3,171	3,578	4,260	4,976	6,376	8,806
55 - 64	2,130	2,436	2,807	3,352	4,243	5,015	6,868	9,241
65 and over	1,413	1,534	1,738	2,187	2,910	3,485	4,880	6,454
TOTAL	1,718	2,038	2,318	2,833	3,500	3,618	5,259	7,391
Black, Michigan								
18 - 24	2,054	2,130	2,034	1,966	2,824	2,807	4,572	5,378
25 - 34	3,236	2,750	2,949	3,217	4,036	4,831	6,974	8,797
35 - 44	2,637	2,818	2,993	3,457	4,314	5,209	7,610	9,669
45 - 54	2,429	2,802	3,066	3,366	4,264	5,311	7,666	10,742
55 - 64	1,912	2,207	2,490	2,765	3,732	4,058	7,723	9,909
65 and over	1,276	1,395	1,533	1,665	1,992	1,935	3,264	--
TOTAL	1,794	2,163	2,489	2,926	3,648	4,097	6,580	9,474

TABLE IV-4. AVERAGE MEAN INCOME IN 1969 OF FEMALES 18 YEARS OLD AND OVER IN MICHIGAN AND THE UNITED STATES, BY YEARS OF SCHOOL COMPLETED, AGE GROUP, AND RACE: CENSUS 1970 (cont.)

	Years of school completed							
	Elementary school			High school		College		
Age group	Less than 5 years	5 - 7 years	8 years	1 - 3 years	4 years	1 - 3 years	4 years	5 years or more
Black, United States								
18 - 24	$ 1,606	$ 1,577	$ 1,755	$ 1,830	$ 2,583	$ 2,406	$ 4,032	$ 4,148
25 - 34	1,993	2,138	2,375	2,710	3,551	4,466	6,092	7,152
35 - 44	1,895	2,167	2,490	2,901	3,811	4,757	6,791	8,437
45 - 54	1,678	2,081	2,431	2,846	3,804	4,720	6,685	9,146
55 - 64	1,442	1,761	2,068	2,423	3,243	4,079	6,017	8,462
65 and over	1,102	1,254	1,380	1,546	1,953	2,174	3,151	4,959
TOTAL	1,388	1,767	2,104	2,505	3,256	3,680	5,812	7,916
Persons of Spanish Language, Michigan								
18 - 24	1,740	2,564	2,636	1,426	2,702	2,704	2,616	--
25 - 34	2,758	2,361	3,079	2,828	3,697	3,979	4,833	5,872
35 - 44	2,595	2,680	2,844	2,902	5,011	5,325	--	11,477
45 - 54	2,463	1,960	2,715	3,217	4,541	3,840	--	10,904
55 - 64	2,122	3,473	2,362	3,099	5,513	--	--	--
65 and over	1,199	1,451	1,634	1,326	1,700	--	--	--
TOTAL	2,139	2,410	2,630	2,374	3,588	3,684	4,158	8,464
Persons of Spanish Language, United States								
18 - 24	1,933	1,866	1,952	1,735	2,618	2,568	3,667	4,005
25 - 34	2,347	2,394	2,516	2,746	3,488	4,062	5,242	5,923
35 - 44	2,313	2,622	2,866	3,234	3,876	4,356	5,292	7,081
45 - 54	2,167	2,612	2,902	3,351	4,098	4,776	5,653	8,195
55 - 64	1,701	2,177	2,579	3,130	3,629	4,562	5,767	7,423
65 and over	1,298	1,486	1,686	2,052	2,466	3,292	3,311	5,654
TOTAL	1,868	2,266	2,487	2,586	3,264	3,570	4,940	6,663

SOURCES: Bureau of the Census, U.S. Census of Population: 1970, Detailed Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-D24, Table 197; and Bureau of the Census, U.S. Census of Population: 1970, vol. 1, Characteristics of the Population, United States Summary (Washington, D.C.: 1973), Part 1, section 2, Table 249.

TABLE IV-5. AVERAGE MEAN INCOME IN 1969 OF FAMILIES IN MICHIGAN BY YEARS OF SCHOOL COMPLETED, AGE GROUP, AND RACE OF HEAD: CENSUS 1970

Age group	Years of school completed: Elementary school: Less than 5 years	Elementary school: 5 - 7 years	Elementary school: 8 years	High school: 1 - 3 years	High school: 4 years	College: 1 - 3 years	College: 4 years	College: 5 years or more
White								
Head under 25 years old	$ 7,315	$ 6,528	$ 6,700	$ 7,342	$ 8,802	$ 8,709	$ 9,040	$ 9,640
25 - 34	10,050	9,077	9,315	9,955	11,070	12,277	13,943	14,725
35 - 44	10,153	10,984	11,545	12,284	13,142	15,412	19,016	21,704
45 - 54	10,965	11,750	12,393	13,632	15,056	18,175	22,919	26,892
55 - 64	10,348	10,386	10,979	12,396	14,065	16,764	23,461	27,160
65 and over	6,386	6,222	6,566	7,745	9,516	11,134	15,865	19,993
Black								
Head under 25 years old	5,187	5,203	5,287	5,022	6,934	8,061	9,626	26,679
25 - 34	7,063	6,520	6,829	7,205	8,926	10,387	13,837	15,558
35 - 44	8,394	9,096	9,268	9,385	10,153	11,976	14,091	21,351
45 - 54	9,194	10,296	10,331	10,578	11,251	13,134	16,392	21,001
55 - 64	8,672	9,117	9,239	9,743	10,672	12,187	13,906	22,344
65 and over	5,176	5,722	6,193	6,599	9,574	7,592	9,440	---
Persons of Spanish Language								
Head under 25 years old	---	6,079	7,388	6,986	7,882	8,114	---	---
25 - 34	6,545	8,341	9,370	9,032	10,126	11,099	12,803	12,353
35 - 44	9,309	9,475	11,308	11,294	12,721	14,008	15,823	29,158
45 - 54	9,787	11,579	12,957	12,217	14,854	18,138	18,735	22,123
55 - 64	10,175	10,324	10,733	10,424	15,291	---	---	---
65 and over	7,785	7,254	9,031	7,928	9,154	---	---	---

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-D24, Table 202.

TABLE IV-6. EDUCATIONAL ATTAINMENT AND MEDIAN INCOME AMONG PERSONS 25 YEARS OLD AND OLDER, BY SEX, SURVEY OF INCOME AND EDUCATION, MICHIGAN AND THE UNITED STATES: SPRING 1976

Educational attainment	Michigan				United States			
	Male		Female		Male		Female	
	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]
Eight years of elementary	227	$ 7,669	210	$ 2,663	5,250	$ 6,932	5,984	$ 2,680
Eight years or less of elementary	405	6,794	395	2,503	11,878	5,699	12,714	2,460
Four years of high school	736	13,107	1,132	4,568	17,180	11,914	23,891	4,724
Four years or less of high school	1,174	12,395	1,595	4,370	25,443	10,995	34,212	4,228
Four years or more of college	397	17,307	282	8,175	10,601	16,673	7,402	8,491
Some college	747	15,854	629	6,718	18,793	14,871	16,186	6,769
TOTAL	2,326	12,563	2,619	4,248	56,114	10,952	63,112	4,052

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-26, Number 111 (Washington, D.C.: 1978), Tables 1B and 7B.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Income data pertain to 1975.

a. Includes persons without income.

b. Persons with income only.

TABLE IV-7. NUMBER OF SCHOOLS IN MICHIGAN, BY SPECIFIED TYPE, SELECTED YEARS: 1958-1976

Type of school	1958	1960	1962	1964	1966	1968	1971	1973	1974	1975	1976
Public schools[a]											
Elementary	4,356	4,035	2,962	3,242	3,370	3,362	2,503	2,504	2,907	2,852	2,860
Secondary	832	893	944	1,176	1,130	1,057	1,359	1,377	1,111	1,077	1,100
Combined[b]						61	43	43	n.a.	22	21
Nonpublic schools[c]											
Elementary	696	699	733	733	763	763	700	n.a.	n.a.	n.a.	n.a.
Secondary	224	240	230	292	253	253	170	n.a.	n.a.	n.a.	n.a.
Institutions of higher education											
Publicly controlled	23	24	24	25	29	36	42	42	42	42	42
Privately controlled	35	35	39	42	45	51	48	45	46	47	47
Schools of nursing not affiliated with colleges and universities	21	23	22	21	21	20	20	n.a.	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1959 through 1978 (Washington, D.C.: annually), Table 209 (1978).

a. Excluding kindergartens. Secondary includes junior high school.

b. Included in secondary prior to 1968.

c. Excluding kindergartens. Secondary includes junior high school and combined elementary-secondary schools.

n.a.: not available as of 1 May 1978.

TABLE IV-8. STUDENT ENROLLMENT, TEACHERS, STUDENT-TEACHER RATIO, AVERAGE TEACHER SALARY, AND NUMBER OF SCHOOL DISTRICTS IN MICHIGAN, PUBLIC SCHOOLS ONLY, SCHOOL YEARS: 1953-1954 THROUGH 1977-1978

School year	Enrollment[a]	Number of teachers[b]	Student-teacher's ratio	Average teacher's salary	Number of districts
1953-54	1,253,602	43,957	28.5	$ 4,173	4,246
1954-55	1,315,238	47,040	28.0	4,380	3,855
1955-56	1,384,813	49,663	27.9	4,865	3,495
1956-57	1,451,949	53,171	27.3	5,067	2,854
1957-58	1,581,121	55,794	27.2	5,340	2,499
1958-59	1,574,606	58,251	27.0	5,504	2,301
1959-60	1,624,262	60,394	26.9	5,699	2,149
1960-61	1,676,404	63,271	26.5	5,898	1,989
1961-62	1,733,705	66,024	26.3	6,091	1,794
1962-63	1,794,045	68,099	26.3	6,307	1,580
1963-64	1,856,895	69,376	26.8	6,474	1,515
1964-65	1,917,890	72,935	26.3	6,745	1,227
1965-66	1,968,403	76,047	25.9	6,896	993
1966-67	2,033,982	80,637	25.2	7,535	866
1967-68	2,079,704	83,443	24.9	8,238	712
1968-69	2,122,915	87,386	24.3	9,134	648
1969-70	2,164,386	89,049	24.3	10,045	638
1970-71	2,178,746	87,499	24.9	11,034	624
1971-72	2,212,505	89,236	24.8	11,671	608
1972-73	2,193,270	90,499	24.2	12,070	602
1973-74	2,159,966	90,771	23.8	12,852	597
1974-75	2,139,720	88,743	24.1	14,059	590
1975-76	2,127,917	89,847	23.7	15,064	587
1976-77	2,081,936	90,780	22.9	15,426	581
1977-78	2,023,944	90,312	22.4	16,445	579

SOURCES: Michigan Department of Education, Michigan Educational Statistics, 1972 through 1976 (Lansing: annually), Table 13 (1975-1976); Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1953 through 1978, Bulletin 1011 (Lansing: annually), p. 5 (1976); and Michigan Department of Education, special release (for number of teachers and ratio, 1952 through 1966).

a. Membership is defined as the number of students enrolled on the fourth Friday after the opening of the school year.

b. Classroom teachers only after 1967-1968.

TABLE IV-10. PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP IN MICHIGAN: 1955-1956 THROUGH 1978-1979

School year	Public K-12 membership[a]	Nonpublic K-12 membership[b]	Total membership	Nonpublic school membership as percentage of total membership
1955-56	1,384,813	257,373	1,642,186	15.7
1956-57	1,451,949	272,671	1,724,620	15.8
1957-58	1,518,121	281,967	1,800,088	15.7
1958-59	1,574,606	211,277	1,785,883	11.8
1959-60	1,624,262	298,275	1,922,537	15.5
1960-61	1,676,404	314,770	1,991,174	15.8
1961-62	1,733,705	325,028	2,058,733	15.8
1962-63	1,794,045	340,925	2,134,970	16.0
1963-64	1,856,895	358,765	2,215,660	16.2
1964-65	1,917,890	320,825	2,238,715	14.3
1965-66	1,968,403	361,348	2,329,751	15.5
1966-67	2,033,982	353,444	2,387,426	14.8
1967-68	2,079,704	338,945	2,418,649	14.0
1968-69	2,122,919	323,666	2,446,585	13.2
1969-70	2,164,386	296,309	2,460,695	12.0
1970-71	2,178,746	274,692	2,453,438	11.2
1971-72	2,212,523	223,836	2,436,359	9.2
1972-73	2,193,270	220,284	2,413,554	9.1
1973-74	2,159,966	215,302	2,375,268	9.1
1974-75	2,139,720	210,349	2,350,069	9.0
1975-76	2,127,917	209,466	2,337,383	9.0
1976-77	2,081,936	211,506	2,293,442	9.2
1977-78	2,024,559	209,208	2,233,767	9.4
1978-79[c]	1,969,047	207,786[d]	2,176,833	9.5

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 2, and special release.

a. Fourth Friday following Labor Day membership count; all pupils in membership in grades K-12 on the fourth Friday following Labor Day of each year as defined by rules promulgated by the State Board of Education.

b. The nonpublic K-12 membership figures are unaudited and may include incomplete data.

c. Preliminary.

d. Includes 3,717 estimated enrollment for 37 unreported schools.

TABLE IV-11. ENROLLMENT BY GRADES IN MICHIGAN PUBLIC SCHOOLS, AT CLOSE OF SCHOOL YEAR, BY SELECTED YEARS: 1935-1970, AND ON THE FOURTH FRIDAY FOLLOWING LABOR DAY: 1972-1977

Grade	1935	1940	1945	1950	1955	1960	1969
K	63,906	69,881	80,960	98,973	146,843	176,441	180,938
1	86,906	77,964	92,982	111,999	141,568	157,219	172,142
2	82,808	74,723	81,199	102,370	135,634	144,642	165,576
3	82,025	75,784	77,698	89,618	114,002	138,874	165,876
4	82,353	77,304	75,016	83,318	96,926	128,975	163,005
5	82,591	77,134	70,828	79,666	96,111	126,077	161,168
6	84,718	78,628	76,102	68,868	79,012	102,493	165,365
7	77,674	77,689	70,637	74,793	98,745	127,169	166,511
8	76,833	76,619	69,870	70,547	86,177	107,113	161,261
9	66,577	74,305	68,237	68,701	81,519	95,730	164,343
10	54,828	67,563	58,592	59,466	71,078	89,906	160,266
11	45,577	56,347	47,005	50,664	61,119	85,896	142,200
12	39,773	50,407	40,067	46,096	51,393	75,383	126,063
Other[a]	23,388	41,985	33,326	28,363	20,848	20,187	69,672
TOTAL	943,867	973,737	935,285	1,043,566	1,304,456	1,597,892	2,164,386

Grade	1970	1972	1973	1974	1975	1976	1977
K	169,329	159,134	153,824	155,987	159,981	152,787	136,843
1	169,462	155,081	151,934	147,344	149,484	154,492	149,567
2	167,056	157,681	150,285	146,946	141,795	143,778	148,878
3	164,207	162,629	153,911	146,188	141,906	137,875	139,365
4	166,628	164,100	161,068	151,769	143,911	139,795	135,434
5	163,550	165,587	163,071	159,768	149,672	142,170	137,803
6	162,530	168,997	164,660	162,093	158,018	148,637	141,603
7	169,384	169,667	171,278	166,923	163,788	159,610	149,898
8	166,416	169,065	168,500	170,013	165,012	162,193	157,603
9	170,736	179,789	176,258	175,558	177,307	174,405	171,649
10	165,094	176,415	175,096	173,641	173,314	172,489	166,038
11	147,911	157,776	159,358	158,309	158,655	157,875	155,259
12	129,051	137,576	139,458	141,910	143,365	143,093	139,565
Other[a]	67,392	69,773	71,265	83,271	101,709	92,737	95,054
TOTAL	2,178,746	2,193,270	2,159,966	2,139,720	2,127,917	2,081,936	2,024,559

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-1978 (Lansing: 1978), Table 3, and special release (for 1930-1960 and 1977 data).

a. Includes students of elementary and secondary ungraded classes; ungraded special needs and postgraduate. Does not include prekindergarteners.

TABLE IV-12. MICHIGAN NONPUBLIC SCHOOL MEMBERSHIP, BY GRADE: 1971-1972 THROUGH 1978-1979

Grade	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
K	4,214	5,165	5,842	6,871	8,825	9,937	9,882	10,166
1	16,995	17,127	16,655	16,089	16,910	18,479	17,704	16,479
2	19,289	18,074	17,746	16,958	16,571	17,415	18,563	17,745
3	20,087	20,015	18,461	18,046	17,607	17,720	17,565	18,370
4	21,272	20,509	20,109	18,268	18,135	17,844	17,317	17,389
5	22,047	21,301	20,756	19,796	18,823	18,602	18,200	17,345
6	22,193	21,765	21,017	20,222	19,890	19,227	18,758	18,179
7	21,027	20,798	20,516	19,984	19,562	19,532	18,530	17,925
8	21,281	20,366	19,961	19,981	19,247	18,949	18,844	17,442
9	14,529	14,615	14,603	14,697	14,372	14,460	14,522	14,191
10	13,630	13,583	13,614	13,795	13,577	13,486	13,571	13,408
11	13,083	12,825	12,807	12,720	12,966	12,898	12,896	12,206
12	13,220	12,448	12,188	12,139	12,207	12,302	12,328	12,235
Other[a]	969	1,693	1,027	781	774	655	528	579
TOTAL	223,836	220,284	215,302	210,347	209,466	211,506	209,208	203,659
Change from previous year								
Number	-50,850	-3,552	-4,982	-4,955	-881	2,040	-2,298	-5,549
Percent	-18.5	-1.6	-2.3	-2.3	-0.4	1.0	-1.1	-2.7

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 3, and special release.

NOTE: Data are unaudited.

a. Does not include prekindergarten students.

TABLE IV-13. MICHIGAN NONPUBLIC SCHOOL MEMBERSHIP, BY DENOMINATION: 1978-1979

	Grades K-8	Grades 9-12	Pre-school	Special education	Part-time
Roman Catholic	97,274	36,171	456	282	4
Christian (NUCS)	11,729	5,613	259	68	0
Luth./Mo. Synod	18,353	2,199	1,160	10	0
Luth./Wisc. Synod	3,020	583	0	0	0
Seventh Day Adv.	2,613	1,117	22	0	4
Jewish	849	149	30	0	0
Baptist (unreported)	4,180	1,573	156	0	0
Christian Science	33	0	7	0	0
Other (priv. endowed) (unreported)	4,411	1,323	260	112	3
Unaffiliated (unreported)	1,993	31	1,102	67	28
Mich. Assn. Chr. Sch. (unreported)	2,673	1,015	124	0	0
Independent	3,593	2,590	347	1	0
Seventh Day Adv. (Lake Reg. Conf.)	319	76	0	0	0
Total	151,040	52,440	3,923	540	39

SOURCE: Michigan Department of Education, special release.

TABLE IV-14. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1976 AND 1977 AND 1977-1978

County	1976-1977				1977-1978				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1976-77	1977-78
Alcona	1,414	63	0	0	1,346	63	0	0	0	0
Alger	2,380	111	29	3	2,322	110	33	3	1.0	1.0
Allegan	18,217	818	821	47	17,694	809	769	40	4.5	4.3
Alpena	8,796	388	522	25	8,349	350	569	28	5.9	6.8
Antrim	4,033	195	68	3	3,961	210	67	3	1.7	1.7
Arenac	3,593	141	0	0	3,573	148	0	0	0	0
Baraga	2,214	93	132	6	2,182	97	155	6	6.0	7.1
Barry	8,699	361	83	7	8,582	360	94	6	1.0	1.1
Bay	26,191	1,098	5,932	233	25,208	884	5,598	241	22.5	22.0
Benzie	2,841	122	0	0	2,757	112	0	0	0	0
Berrien	42,816	2,067	4,251	254	41,008	1,994	4,157	218	9.9	10.1
Branch	7,511	328	448	27	7,467	333	507	28	5.9	6.8
Calhoun	32,442	1,550	1,294	100	31,674	1,562	1,285	84	4.0	4.1
Cass	9,283	438	57	3	9,152	436	38	3	.6	.4
Charlevoix	5,031	223	93	7	4,848	214	92	6	1.9	1.9
Cheboygan	4,581	204	433	21	4,401	206	392	20	9.4	8.9
Chippewa	8,807	412	11	1	7,077	342	13	1	.1	.2
Clare	5,558	247	125	4	5,530	246	94	4	2.3	1.7
Clinton	11,961	530	1,172	47	11,874	517	1,128	43	9.8	9.5
Crawford	2,218	94	53	3	2,142	87	66	3	2.3	3.1
Delta	10,235	461	644	29	10,009	461	641	28	6.3	6.4
Dickinson	5,724	250	496	20	5,565	244	479	25	8.2	8.6
Eaton	19,030	838	509	34	18,986	835	560	39	2.7	2.9
Emmet	5,225	251	562	27	4,982	250	568	26	10.7	11.3
Genesee	118,914	4,903	6,907	301	114,773	4,894	6,947	319	5.8	6.0

TABLE IV-9. NUMBER OF TEACHING POSITIONS, AVERAGE TEACHER'S SALARY, AND PUPIL MEMBERSHIP OF PUBLIC SCHOOLS IN MICHIGAN, BY SIZE OF SCHOOL DISTRICT: 1968-1969 AND 1977-1978

Size of district	Number of districts		Teaching position		Average teacher's salary		Pupil membership, September	
	1968-1969	1977-1978	1968-1969	1977-1978	1968-1969	1977-1978	1968-1969	1977-1978
50,000 and over	1	1	11,036	9,424	$ 9,691	$17,832	294,094	223,049
20,000 - 49,999	9	9	11,586	11,219	9,800	17,487	267,470	260,047
10,000 - 19,999	23	21	14,775	13,042	9,618	18,210	344,768	278,790
5,000 - 9,999	59	59	16,965	17,906	9,387	16,777	399,780	400,828
4,500 - 4,999	14	10	2,640	2,183	8,433	16,426	66,105	48,031
4,000 - 4,499	16	23	2,771	4,337	8,959	17,211	67,539	97,384
3,500 - 3,999	19	23	2,864	3,810	8,844	16,127	71,584	85,988
3,000 - 3,499	28	32	3,783	4,756	8,630	15,301	92,296	105,512
2,500 - 2,999	33	34	3,606	4,125	8,523	15,363	90,449	93,352
2,000 - 2,499	53	59	4,718	5,879	8,321	14,806	117,755	130,525
1,500 - 1,999	72	72	5,044	5,657	8,225	14,566	126,611	124,782
1,000 - 1,499	88	70	4,384	4,087	8,139	13,613	108,047	87,683
500 - 999	76	80	2,314	3,050	7,808	12,930	54,209	62,144
Below 500	157	86	1,001	832	7,008	12,393	22,208	15,829
TOTAL	648	579	87,487	90,312	9,134	16,446	2,122,915	2,023,944

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1968-1969 and 1977-1978, Bulletin 1011 (Lansing: annually) p.5 (1977-1978).

TABLE IV-14. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1976 AND 1977 AND 1977-1978 (cont.)

County	1976-1977				1977-1978				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1976-77	1977-78
Gladwin	3,901	175	153	6	3,962	169	154	8	3.9	3.9
Gogebic	4,148	202	400	24	3,945	198	424	23	9.6	10.7
Grand Traverse	11,060	458	1,891	128	11,044	464	1,924	132	16.9	17.2
Gratiot	11,047	478	40	2	10,721	482	38	3	.4	.4
Hillsdale	9,120	425	518	28	8,913	397	543	42	5.7	6.1
Houghton	7,075	316	171	9	6,822	314	177	9	2.4	2.6
Huron	8,332	388	904	48	8,009	397	811	45	10.8	10.1
Ingham	62,207	2,749	4,253	209	60,955	2,782	4,108	217	6.8	6.7
Ionia	13,223	586	995	48	13,077	584	970	48	7.5	7.4
Iosco	8,378	380	161	6	8,325	369	159	6	1.9	1.9
Iron	2,821	125	0	0	2,719	122	0	0	0	0
Isabella	7,496	353	777	42	7,429	351	757	42	10.3	10.1
Jackson	32,381	1,441	3,610	158	31,602	1,399	3,709	173	11.1	11.7
Kalamazoo	40,635	1,946	3,646	167	39,167	1,979	3,624	197	8.9	9.2
Kalkaska	2,526	109	42	2	2,574	127	45	2	1.7	1.8
Kent	98,822	4,339	18,115	897	96,762	4,290	17,304	869	18.2	17.7
Keweenaw	18	1	0	0	27	1	0	0	0	0
Lake	1,000	53	0	0	974	55	0	0	0	0
Lapeer	15,523	605	420	18	15,781	630	452	19	2.7	2.9
Leelanau	2,194	119	395	32	2,173	119	358	30	17.7	16.3
Lenawee	21,662	992	870	60	21,299	957	897	61	4.0	4.2
Livingston	20,221	827	618	29	20,719	859	609	24	3.1	2.9
Luce	1,807	84	7	1	1,792	78	8	1	.4	.5
Mackinac	2,476	140	0	0	2,491	126	0	0	0	0
Macomb	172,671	7,238	12,665	481	166,466	7,269	12,833	489	7.3	7.7

TABLE IV-14. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITION, BY COUNTY: 1976 AND 1977 AND 1977-1978 (cont.)

County	1976-1977				1977-1978				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1976-77	1977-78
Manistee	4,586	197	847	34	4,586	206	787	36	18.3	17.0
Marquette	15,273	783	565	28	15,152	767	591	27	3.7	3.9
Mason	5,899	295	234	13	5,633	272	227	12	4.0	4.0
Mecosta	6,565	281	412	22	6,463	275	383	22	6.3	5.9
Menominee	5,512	263	491	22	5,286	256	466	21	8.9	8.8
Midland	17,776	812	1,085	45	17,184	798	848	44	6.1	4.9
Missaukee	1,989	79	401	17	1,994	86	371	17	10.0	18.5
Monroe	30,787	1,341	3,624	174	30,484	1,315	3,509	168	11.7	11.5
Montcalm	13,770	624	610	39	13,626	624	624	45	4.4	4.6
Montmorency	1,369	57	28	3	1,341	64	25	4	2.0	1.9
Muskegon	39,278	1,875	3,146	161	37,709	1,822	3,170	159	8.0	8.4
Newaygo	8,569	354	449	24	8,459	357	444	23	5.2	5.2
Oakland	226,684	10,284	24,338	1,327	221,135	10,267	24,862	1,365	10.7	11.2
Oceana	4,602	220	52	4	4,419	196	78	4	1.1	1.8
Ogemaw	2,619	119	208	9	2,763	131	202	9	7.9	7.3
Ontonagon	2,967	137	0	0	2,825	150	0	0	0	0
Osceola	5,739	245	86	7	5,683	244	104	7	1.5	1.8
Oscoda	1,415	66	49	4	1,401	67	52	5	3.5	3.7
Otsego	3,872	165	761	30	3,854	162	738	33	19.5	19.0
Ottawa	30,790	1,471	7,252	323	30,731	1,451	7,158	330	23.3	23.0
Presque Isle	3,260	136	669	26	3,152	131	636	25	20.4	20.0
Roscommon	3,461	147	162	6	3,409	146	195	8	4.7	5.7
Saginaw	55,071	2,466	6,921	314	53,363	2,367	7,179	289	12.5	13.4
St. Clair	31,874	1,380	1,714	95	31,877	1,429	1,797	96	5.4	5.6
St. Joseph	13,597	664	415	28	13,268	652	432	30	3.1	3.3

TABLE IV-14. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1976 AND 1977 AND 1977-1978 (cont.)

County	1976-1977				1977-1978				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1976-77	1977-78
Sanilac	10,393	437	32	2	10,146	438	26	3	.3	.3
Schoolcraft	1,837	78	233	10	1,812	79	247	13	12.6	13.5
Shiawassee	19,327	831	984	60	19,094	830	1,013	61	5.1	5.3
Tuscola	16,210	695	1,275	50	15,964	716	1,332	53	7.8	8.3
Van Buren	18,219	791	733	36	17,790	799	731	47	4.0	4.1
Washtenaw	46,245	2,279	3,554	202	45,813	2,235	3,429	228	7.7	7.5
Wayne	498,346	20,306	77,415	3,601	478,801	20,450	75,935	3,551	15.4	15.7
Wexford	5,587	232	208	11	5,537	248	205	11	3.7	3.7
Total	2,081,936	90,780	211,506	8,919	2,023,944	90,312	209,208	9,018	9.2	9.4

SOURCE: Michigan Department of Public Education, 1976-77 Summary of Expenditure Data for Michigan Public Schools, Bulletin 1013 (Lansing: 1978), pp. 1 - 69, 1977-78 Summary of Expenditure Data for Michigan Public Schools, Bulletin 1013 (Lansing: 1979), pp. 1 - 51, and special release.

TABLE IV-15. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Alcona	5	0	2	3	1,322	1,322	10	.8
Alger	181	6	3	4	2,034	2,228	194	8.7
Allegan	122	211	44	572	16,334	17,283	949	5.5
Alpena	15	11	14	10	7,694	7,744	50	.6
Antrim	67	1	10	17	3,799	3,894	95	2.4
Arenac	30	1	10	41	3,432	3,514	82	2.3
Baraga	333	0	0	2	1,762	2,097	335	16.0
Barry	15	10	29	41	8,002	8,097	95	1.2
Bay	431	283	85	328	21,170	22,797	1,627	7.1
Benzie	70	18	6	69	2,559	2,702	162	6.0
Berrien	381	8,836	133	635	29,202	39,187	9,985	25.5
Branch	7	14	17	21	7,017	7,076	59	8.3
Calhoun	70	3,859	125	499	25,410	29,963	4,553	15.2
Cass	47	1,073	26	138	7,488	8,772	1,284	14.6
Charlevoix	92	7	16	0	4,544	4,659	115	2.5
Cheboygan	143	4	6	4	4,115	4,272	157	3.7
Chippewa	1,047	10	31	6	5,479	6,573	1,094	16.6
Clare	16	1	2	12	5,345	5,376	31	.6
Clinton	49	13	24	211	11,376	11,673	297	2.5
Crawford	477	1	2	8	1,568	2,056	488	23.7
Delta	483	5	20	25	8,603	9,136	533	5.8
Dickinson	2	2	8	0	5,046	5,058	12	.2
Eaton	41	63	69	184	18,064	18,421	357	1.9
Emmet	242	13	17	4	4,675	4,951	276	5.6
Genesee	1,898	24,123	490	1,729	81,901	110,141	28,240	25.6

TABLE IV-15. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Gladwin	22	2	7	28	3,885	3,944	59	1.5
Gogebic	163	3	10	7	3,338	3,521	183	5.2
Grand Traverse	69	10	44	50	10,543	10,716	173	1.6
Gratiot	19	7	10	410	9,823	10,269	446	4.3
Hillsdale	5	14	6	42	8,409	8,476	67	.8
Houghton	35	7	34	10	6,508	6,594	86	1.3
Huron	1,324	6	25	83	6,326	7,764	1,438	18.5
Ingham	396	6,348	594	3,262	46,614	57,214	10,600	18.5
Ionia	14	12	24	260	12,169	12,479	310	2.5
Iosco	40	108	85	36	7,450	7,719	269	3.5
Iron	24	6	14	7	2,543	2,594	51	2.0
Isabella	151	38	34	76	6,710	7,009	299	4.3
Jackson	319	2,022	133	242	26,639	29,355	2,716	9.3
Kalamazoo	102	4,984	260	490	32,618	38,454	5,836	15.2
Kalkaska	10	4	7	8	2,354	2,383	29	1.2
Kent	520	9,667	528	1,954	71,101	83,770	12,669	15.1
Keweenaw	0	0	0	0	24	24	0	0
Lake	1	405	0	0	546	952	406	.4
Lapeer	16	29	34	358	15,246	15,683	437	2.8
Leelanau	812	4	12	15	1,301	2,144	843	39.3
Lenawee	21	145	111	1,431	19,172	20,880	1,708	8.2
Livingston	674	39	64	89	20,115	20,981	866	4.1
Luce	198	1	1	4	1,505	1,709	204	11.9
Mackinaw	725	0	1	1	1,512	2,239	727	32.5
Macomb	2,239	2,506	1,053	823	152,919	159,540	6,621	4.2

TABLE IV-15. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Manistee	61	11	22	102	4,132	4,328	196	4.5
Marquette	203	136	108	47	14,152	14,646	494	3.4
Mason	97	29	23	180	5,108	5,437	329	6.1
Mecosta	73	90	9	30	6,071	6,273	202	3.2
Menominee	21	3	13	15	5,218	5,270	52	1.0
Midland	45	108	138	131	16,124	16,546	422	2.6
Missaukee	0	0	7	0	2,002	2,009	7	.3
Monroe	215	657	53	426	27,845	29,196	1,351	4.6
Montcalm	27	46	40	224	13,090	13,427	337	2.5
Montmorency	7	0	1	23	1,232	1,263	31	2.5
Muskegon	489	6,119	109	758	27,724	35,199	7,475	21.2
Newaygo	23	92	26	248	7,872	8,261	389	4.7
Oakland	1,564	13,033	1,960	2,526	191,269	210,352	19,083	9.1
Oceana	49	8	7	369	3,776	4,209	433	10.3
Ogemaw	25	0	6	8	2,647	2,686	39	1.5
Ontonagon	115	2	3	0	2,399	2,519	120	4.8
Osceola	42	5	9	18	5,423	5,497	74	1.3
Oscoda	9	0	0	4	1,353	1,366	13	1.0
Otsego	14	2	6	7	3,570	3,599	29	.8
Ottawa	156	128	170	1,336	27,721	29,511	1,790	6.1
Presque Isle	1	2	6	1	2,998	3,008	10	.3
Roscommon	7	0	2	1	3,392	3,402	10	.3
Saginaw	502	11,120	154	3,449	36,126	51,351	15,225	29.6
St. Clair	379	872	98	418	28,930	30,697	1,767	5.8
St. Joseph	6	362	56	61	12,019	12,504	485	3.9

TABLE IV-15. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Sanilac	201	2	16	336	9,292	9,847	555	5.6
Schoolcraf	411	1	4	1	1,131	1,548	417	26.9
Shiawassee	83	11	46	176	18,491	18,807	316	1.7
Tuscola	78	61	20	300	15,030	15,489	459	3.0
Van Buren	98	1,718	29	572	14,766	17,183	2,417	14.1
Washtenaw	104	6,519	697	483	36,608	44,411	7,803	17.6
Wayne	1,747	204,275	2,925	5,590	238,270	452,807	214,537	47.4
Wexford	10	3	15	17	5,293	5,338	45	.8
TOTAL	21,025	310,347	11,058	32,606	1,548,385	1,923,421	375,036	19.5

SOURCE: Michigan Department of Education, special release.

TABLE IV-16. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS: FALL 1969-1979

School year	Native American		Black		Asian American		Latino		Other white		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
1969-1970	4,881	.2	283,909	13.2	4,109	.2	28,051	1.3	1,823,817	85.0	2,144,767
1970-1971	4,982	.2	291,394	13.4	4,302	.2	28,196	1.3	1,851,192	84.9	2,180,066
1971-1972	11,713	.5	298,125	13.5	4,653	.2	31,239	1.4	1,862,328	84.3	2,208,058
1972-1973	5,776	.3	306,922	14.1	4,855	.2	31,735	1.5	1,833,559	84.0	2,182,847
1973-1974	7,197	.3	305,132	14.3	5,203	.2	32,038	1.5	1,789,026	83.7	2,138,596
1974-1975	10,569	.5	302,612	14.4	5,851	.3	32,362	1.6	1,748,872	83.3	2,100,536
1975-1976	15,184	.7	308,270	14.8	6,615	.3	33,374	1.6	1,715,453	82.5	2,078,896
1976-1977	21,571	1.1	313,913	15.4	8,416	.4	32,709	1.6	1,666,004	81.6	2,042,613
1977-1978	19,279	1.0	311,786	15.7	9,556	.5	32,710	1.6	1,609,605	81.2	1,982,936
1978-1979	21,025	1.1	310,347	16.1	11,058	.6	32,606	1.7	1,548,385	80.5	1,923,421

SOURCE: Michigan Department of Education, special release.

TABLE IV-17. PUBLIC HIGH SCHOOL DROPOUTS IN MICHIGAN: 1969-1970 THROUGH 1976-1977

School year	9-12 grade adjusted public school membership[a]	9-12 grade public school dropouts[b]	Annual dropout rate (percent)
1969-70	601,621	40,610	6.8
1970-71	619,948	37,339	6.0
1971-72	627,872	40,443	6.4
1972-73	639,776	41,354	6.5
1973-74	637,231	43,666	6.9
1974-75	636,584	37,248	5.9
1975-76	631,822	37,967	6.0
1976-77	622,685	39,216	6.3

SOURCE: Michigan Department of Education, Public High School Dropouts in Michigan, 1975-76 (Lansing: 1977), Table A, and special release.

a. Figure obtained by subtracting involuntary losses during the twelve-month period covered in the survey (for example, transfers to other schools, student deaths, illness or injury affecting attendance through the close of school, commitment to mental health institutions) from membership figures which included all students in membership on fourth Friday following Labor Day, plus all entries, registrations, returns, and/or transfers from other schools which occurred during the twelve-month period covered in the survey.

b. Annual dropouts include all students removed from the school membership roll prior to graduation for any reason other than involuntary losses without provisions being made to transfer to another school which would provide courses leading to the completion of a high school education during the twelve-month period covered in the survey.

TABLE IV-18. PUBLIC HIGH SCHOOL GRADUATES IN MICHIGAN AND GRADUATES ENROLLED IN POSTSECONDARY EDUCATIONAL INSTITUTIONS: 1973-1978

Year	Public high school graduates[a]	Graduates enrolled in two- or four-year degree granting institutions		Graduates enrolled in nondegree granting institutions[b]	
		Number	Percent	Number	Percent
1973	129,850	52,302	40.3	6,811	5.2
1974	132,624	54,130	40.8	6,199	4.7
1975	135,509	59,094	43.6	6,826	5.0
1976	135,162	55,923	41.4	6,320	4.7
1977	135,337	54,243	40.1	6,540	4.2
1978	132,759	54,349	40.9	5,355	4.0

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 9, and special release.

a. Includes January-February, June, and August graduates.

b. Includes trade, technical, and vocational business schools.

TABLE IV-19. ANNUAL DROPOUT RATES, BY SIZE OF SCHOOL DISTRICT, SEX, AND GRADE: 1972-1973, 1973-1974, 1974-1975, AND 1975-1976

Item	1972-1973	1973-1974	1974-1975	1975-1976
	By size of school district			
50,000 and over	11.95%	14.77%	12.83%	14.42%
20,000 - 49,999	6.58	6.46	6.62	6.13
10,000 - 19,999	6.14	6.51	4.95	5.16
5,000 - 9,999	5.56	6.08	5.03	5.20
4,500 - 4,999	5.57	5.68	4.09	3.97
4,000 - 4,499	5.63	5.65	5.41	5.18
3,500 - 3,999	6.46	6.31	6.36	6.06
3,000 - 3,499	5.99	5.54	4.94	5.10
2,500 - 2,999	5.30	5.70	4.94	5.26
2,000 - 2,499	5.36	5.24	4.49	4.70
1,500 - 1,999	5.03	5.34	4.61	4.81
1,000 - 1,499	5.04	4.94	4.03	4.48
500 - 999	4.17	4.61	3.97	4.25
Below 500	3.85	3.86	3.25	2.76
	By sex and grade			
Grade 9				
Male	3.67	3.97	3.47	3.74
Female	2.57	2.68	2.48	2.61
Grade 10				
Male	8.47	8.94	7.67	7.79
Female	6.21	6.66	6.01	5.95
Grade 11				
Male	10.11	10.32	8.54	9.18
Female	7.83	8.30	7.13	7.04
Grade 12				
Male	7.93	8.37	6.75	6.99
Female	5.48	5.87	5.07	5.02
Grades 9 - 12				
Male	7.42	7.81	6.55	6.87
Female	5.48	5.87	5.13	5.12
TOTAL	6.46	6.85	5.85	6.01

SOURCES: Michigan Department of Education, Public High School Dropouts in Michigan, 1973-74 (Lansing: 1975), Table 4; and Michigan Department of Education, Public High School Dropouts in Michigan, 1974-75 and 1975-76 (Lansing: 1977), Tables III and IV.

TABLE IV-20. MICHIGAN NONPUBLIC SCHOOL HIGH SCHOOL GRADUATES BY DENOMINATION: 1977-1978

	Male	Female	Total
Roman Catholic	4,263	4,849	9,112
Christian	631	747	1,378
Lutheran/Missouri Synod	183	213	396
Lutheran/Wisconsin Synod	55	73	128
Seventh Day Adventist	124	128	252
Jewish	1	30	41
Baptist	124	112	236
Christian Science	0	0	0
Other	114	144	158
Unaffiliated	2	1	3
Mich. Assn. Chr. Schools	63	97	160
Independent	309	341	650
Seventh Day Adventist (Lake Region Conference)	7	7	14
Total	5,876	6,742	12,618

SOURCE: Michigan Department of Education, special release.

TABLE IV-21. PROJECTIONS OF PUBLIC SCHOOL ENROLLMENT IN MICHIGAN INTERMEDIATE SCHOOL DISTRICTS: 1981-1982

District	Grades kindergarten through 6			Grades 7 through 12		
	Actual 1976-1977	Projected 1981-1982	Percentage change	Actual 1976-1977	Projected 1981-1982	Percentage change
Alcona-Montmorency-Alpena	4,927	4,556	- 7.53	6,309	5,114	- 8.90
Alger, see Marquette-Alger						
Allegan	7,795	7,693	- 1.31	7,383	6,726	-18.94
Alpena, see Alcona-Montmorency-Alpena						
Antrim, see Traverse Bay Area						
Arenac, see Bay-Arenac						
Baraga, see Copper Country						
Barry	3,142	3,033	- 3.47	3,169	2,796	-11.77
Bay-Arenac	13,616	11,615	-14.70	14,812	13,071	-11.75
Benzie, see Traverse Bay Area						
Berrien	21,324	18,929	-11.23	19,436	16,775	-13.69
Branch	3,622	3,412	- 5.80	3,742	2,928	-21.75
Calhoun	17,359	15,715	- 9.47	16,470	13,883	-15.71
Lewis Cass	4,771	4.335	- 9.14	4,317	3,877	-10.19
Charlevoix-Emmet	5,185	5,055	- 2.51	5,761	5,075	-11.91
Cheboygan-Otsego-Presque Isle	5,385	5,310	- 1.39	5,846	5,413	- 7.41
Eastern Upper Peninsula[a]	6,305	6,598	+ 4.65	6,250	5,144	-17.70
Clare-Gladwin	4,524	4,918	+ 8.71	4,713	4,654	- 1.25
Clinton	5,491	4,796	-12.66	5,852	5,994	+ 2.43
Crawford, see COOR						
Delta-Schoolcraft	5,412	5,470	+ 1.07	6,170	5,148	-16.56
Dickinson-Iron	3,618	3,358	- 7.19	4,252	3,594	-15.48
Eaton	8,070	7,154	-11.35	7,969	7,434	- 6.71
Emmet, see Charlevoix-Emmet						
Genesee	57,847	48,507	-16.15	56,213	47,746	-15.06

TABLE IV-21. PROJECTIONS OF PUBLIC SCHOOL ENROLLMENT IN MICHIGAN INTERMEDIATE SCHOOL DISTRICTS: 1981-1982 (cont.)

District	Grades kindergarten through 6			Grades 7 through 12		
	Actual 1976-1977	Projected 1981-1982	Percentage change	Actual 1976-1977	Projected 1981-1982	Percentage change
Gladwin, see Clare-Gladwin						
Gogebic-Ontonagon	3,273	2,805	-14.30	3,477	2,929	-15.76
Traverse Bay Area[b]	10,990	11,624	+ 5.77	10,200	10,577	+ 3.70
Gratiot-Isabella	9,375	8,466	- 9.70	8,584	8,091	- 5.74
Hillsdale	4,507	4,376	- 2.91	4,285	3,831	-10.60
Copper Country[c]	4,500	4,229	- 6.02	4,481	4,148	- 7.43
Huron	3,978	3,703	- 6.91	4,226	3,869	- 8.45
Ingham	31,182	26,130	-16.20	27,950	24,675	-11.72
Ionia	6,588	6,321	- 4.05	6,064	5,549	- 8.49
Iosco	4,016	4,425	+10.18	4,068	3,477	-14.53
Iron, see Dickinson-Iron						
Isabella, see Gratiot-Isabella						
Jackson	16,023	14,208	-11.33	15,291	12,941	-15.37
Kalamazoo	20,226	18,005	-10.98	18,632	15,428	-17.20
Kalkaska, see Traverse Bay Area						
Kent	44,072	39,461	-10.46	43,087	37,055	-14.00
Keweenaw, see Copper Country						
Lake	486	478	- 1.65	482	428	-11.20
Lapeer	8,094	8,563	+ 5.79	7,141	7,913	+10.81
Leelanau, see Traverse Bay Area						
Lenawee	11,004	10,278	- 6.60	10,333	9,246	-10.52
Livingston	10,019	11,643	+16.21	9,372	10,743	+14.63
Luce, see Eastern Upper Peninsula						
Mackinac, see Eastern Upper Peninsula						
Macomb	84,127	67,127	-20.21	84,100	73,514	-12.59

TABLE IV-21. PROJECTIONS OF PUBLIC SCHOOL ENROLLMENT IN MICHIGAN INTERMEDIATE SCHOOL DISTRICTS: 1981-1982 (cont.)

District	Grades kindergarten through 6			Grades 7 through 12		
	Actual 1976-1977	Projected 1981-1982	Percentage change	Actual 1976-1977	Projected 1981-1982	Percentage change
Manistee	2,220	2,026	- 8.74	2,240	1,922	-14.20
Marquette-Alger	8,664	8,424	- 2.77	8,351	7,393	-11.47
Mason	2,753	2,576	- 6.43	3,013	2,464	-18.22
Mecosta-Osceola	4,841	4,805	- .74	4,853	4,908	+ 1.13
Menominee	2,545	2,267	-10.92	2,868	2,635	- 8.12
Midland	8,663	7,358	-15.06	8,573	7,412	-13.54
Missaukee, see Wexford-Missaukee						
Monroe	15,764	14,055	-10.84	14,253	13,295	- 6.71
Montcalm	7,013	6,927	- 1.23	6,468	6,060	- 6.31
Montmorency, see Alcona, Montmorency-Alpena						
Muskegon	18,344	15,940	-13.11	18,022	14,227	-20.97
Newaygo	4,138	4,243	+ 2.54	4,258	3,757	-11.77
Oakland	108,426	92,270	-14.90	107,254	92,659	-13.61
Oceana	2,175	2,343	+ 7.72	2,287	1,922	-15.96
Ogemaw, see COOR						
Ontonagon, see Gogebic-Ontonagon						
Osceola, see Mecosta-Osceola						
Oscoda, see COOR						
Otsego, see Cheboygan-Otsego-Presque Isle						
Ottawa Area	16,269	15,445	- 5.06	15,925	14,606	- 8.28
Presque Isle, see Cheboygan-Otsego-Presque Isle						
COOR[d]	4,703	5,194	+10.44	4,937	5,033	+ 1.94
Saginaw	27,352	24,261	-11.30	25,495	23,102	- 9.39
St. Clair	15,543	14,740	- 5.17	15,043	13,831	- 8.06
St. Joseph	6,723	6,537	- 2.77	6,369	5,505	-13.57

TABLE IV-21. PROJECTIONS OF PUBLIC SCHOOL ENROLLMENT IN MICHIGAN INTERMEDIATE SCHOOL DISTRICTS: 1981-1982 (cont.)

District	Grades kindergarten through 6			Grades 7 through 12		
	Actual 1976-1977	Projected 1981-1982	Percentage change	Actual 1976-1977	Projected 1981-1982	Percentage change
Sanilac	5,133	5,031	- 1.99	5,065	4,556	-10.05
Schoolcraft, see Delta-Schoolcraft						
Shiawassee	9,790	8,858	- 9.52	9,081	8,310	- 8.49
Tuscola	7,998	7,345	- 8.16	7,822	7,538	- 3.63
Van Buren	9,009	8,929	- .89	8,425	7,476	-10.63
Washtenaw	23,789	20,875	-12.25	21,256	19,102	-10.13
Wayne	252,419	202,963	-19.59	222,955	180,109	-19.22
Wexford-Missaukee	4,855	4,999	+ 2.97	4,884	4,709	- 3.58
STATE	1,119,982	888,185	-12.92	970,114	836,762	-13.75

SOURCE: Stanley E. Hecker and Frederick R. Ignatovich, Projections of Michigan Public School Enrollment, Actual 1971-72 through 1976-77 and Projections for 1977-78 through 1981-82 (East Lansing: College of Education, Michigan State University, 1977), Table X.

a. Chippewa, Luce, and Mackinac counties.
b. Grand Traverse, Benzie, Leelanau, Kalkaska, and Antrim counties.
c. Houghton, Baraga, and Keweenaw counties.
d. Crawford, Oscoda, Ogemaw, and Roscommon counties.

TABLE IV-22. PUBLIC VOCATIONAL EDUCATION ENROLLMENTS IN MICHIGAN, BY PROGRAM TYPE AND LEVEL: 1973-1974 THROUGH 1977-1978

Program type and level	1973-1974	1974-1975[a]	1975-1976	1976-1977	1977-1978
Agriculture					
Secondary[b]	14,236	14,022	14,424	14,912	14,406
Postsecondary	1,137	1,302	740	1,392	754
Adult	397	442	248	294	387
Total	15,770	15,766	15,412	16,598	15,547
Distributive education					
Secondary[b]	20,684	20,450	20,529	21,790	20,131
Postsecondary	2,770	3,350	9,647	10,301	9,535
Adult	18,619	16,615	13,182	11,811	896
Total	42,073	40,415	43,358	43,902	30,562
Health					
Secondary[b]	6,815	7,803	7,813	8,727	8,164
Postsecondary	12,739	17,823	19,603	22,012	13,793
Adult[c]	3,811	3,938	1,612	4,314	4,091
Total	23,365	29,564	29,028	35,053	26,048
Home Economics					
Consumer and homemaking					
Secondary[b]	89,385	86,556	78,266	91,414	91,295
Postsecondary	0	0	694	272	0
Adult	2,404	3,467	1,757	728	4,510
Total	91,789	90,023	80,717	92,414	95,805
Wage earning					
Secondary[b]	11,564	11,597	11,121	11,995	13,523
Postsecondary	533	741	1,006	1,018	0
Adult	555	486	475	153	808
Total	12,652	12,824	12,602	13,166	14,331
Office education					
Secondary	25,041	22,603	24,866	23,971	24,335

TABLE IV-22. PUBLIC VOCATIONAL EDUCATION ENROLLMENTS IN MICHIGAN, BY PROGRAM TYPE AND LEVEL: 1973-1974 THROUGH 1977-1978 (cont.)

Program type and level	1973-1974	1974-1975[a]	1975-1976	1976-1977	1977-1978
Office education (cont.)					
Postsecondary[b]	22,294	27,099	36,065	40,792	32,538
Adult	14,113	13,633	10,040	17,396	13,394
Total	61,448	63,335	69,971	82,159	70,267
Technical education					
Secondary	0	0	0	0	0
Postsecondary[b]	11,109	15,227	23,491	18,811	25,694
Adult[c]	7,367	5,404	1,195	6,242	117
Total	18,476	20,631	24,686	25,053	25,811
Trade and industrial education					
Secondary	39,897	40,143	46,356	47,547	48,471
Postsecondary[b]	16,524	14,257	26,879	23,928	14,617
Adult[c]	59,001	57,870	26,299	36,035	38,172
Total	115,422	112,270	99,534	107,510	101,260
TOTAL	380,995	384,828	375,308	415,855	379,631

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 28, and special release.

NOTE: These statistics cover only enrollment in public institutions. The Michigan Department of Education, the Michigan Department of Licensing and Regulation, and other state agencies license private occupational training schools which are not included here.

a. Does not include 15,673 disadvantaged and handicapped students (13,799 secondary, 1,141 postsecondary, and 733 adult) who were served by public schools because the occupational areas of these students were not known. These special needs students were, however, included in the enrollments shown for prior years.

b. Postsecondary enrollment includes both full-time and part-time students.

c. Includes apprenticeship students.

TABLE IV-23. ADULT EDUCATION PROGRAMS IN MICHIGAN: 1968-1969 THROUGH 1977-1978

Participants in adult basic education (headcount)[a]		Persons who received GED certificates[b]	
School year		Calendar year	
1968-69	13,511	1969	2,250
1969-70	15,409	1970	4,374
1970-71	18,671	1971	6,683
1971-72	35,618	1972	7,784
1972-73	42,990	1973	8,623
1973-74	49,439	1974	10,350
1974-75	54,816	1975	10,000
1975-76	81,409	1976	10,937
1976-77	112,889	1977	8,300
1977-78	107,392	1978	9,848

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-1978 (Lansing: 1978), Table 29, and special release.

a. A program for a person, 16 years of age and older, who functions at less than an eighth grade level in reading, writing, and arithmetic. Figures are based on reports of the school districts receiving federal funds under the Adult Education Act as amended (Public Law 91-230) and as reported for state school aid.

b. Persons who received General Educational Development (GED) certificates from the Michigan State Department of Education. Some Michigan local educational agencies are also issuing GED certificates. GED is a certificate which indicates the achievement of high school equivalency.

TABLE IV-24. PUBLIC SCHOOL STAFF IN MICHIGAN, 1977-1978 THROUGH 1978-1979

(Full-time equivalent)

Staff category	1977-1978	1978-1979
Instructional staff		
Professional		
Classroom teachers	92,977	90,686
Other teachers	672	843
Attendance personnel	219	232
Social workers	765	767
Guidance staff	3,093	3,063
Health personnel	395	407
Psychological staff	462	493
Speech and audiology	775	703
Other pupil services	407	395
Consultants	1,276	1,167
Supervision and direction	905	833
Librarians	1,846	1,845
Other staff services and audio-visual	201	232
Nonprofessional		
Teacher aides	10,882	11,426
Other	669	1,111
Library aides	1,596	1,620
Secretary-clerical aides	3,236	2,772
Other aides	1,190	1,293
Other instructional support	408	269
TOTAL	121,974	120,157
Noninstructional staff		
Professional		
Executive administration	1,545	1,588
Fiscal service staff	580	588
Data processing staff	115	113
Principals	3,369	3,358
Assistant principals	1,479	1,442
Other professionals	898	1,056
Nonprofessional		
School food service staff	12,428	12,904
Transportation staff	12,288	12,204
Operation and maintenance staff	17,575	17,700
Data processing staff	308	251
Secretary and clerical	9,233	9,507
Other	2,497	2,034
TOTAL	62,315	62,745
GRAND TOTAL	184,289	182,902

SOURCE: Michigan Department of Education, special release.

TABLE IV-25. NUMBER OF TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS, BY ASSIGNMENT CATEGORY: 1975-1976 THROUGH 1978-1979, TOTAL REPORTING

Category	1975-76	1976-77	1977-78	1978-79
English	7,455	7,371	7,214	7,099
Journalism	400	360	329	308
Speech	519	493	473	477
Reading	2,025	2,182	2,288	2,397
Language arts	722	751	861	869
Economics	149	139	134	123
Geography	490	478	455	434
History	2,126	2,085	2,025	1,978
Political science	416	392	381	374
Psychology	146	151	163	170
Sociology	189	179	173	173
Anthropology	9	10	11	12
Cultural studies	20	17	12	11
Behavior studies	9	12	12	11
Social science	4,537	4,542	4,452	4,389
Biology	1,191	1,186	1,169	1,153
Chemistry	543	526	519	524
Physics	360	344	337	325
Geology-earth science	169	164	165	162
Astronomy	6	7	10	10
Science	3,918	3,864	3,712	3,616
Mathematics	6,311	6,206	6,172	6,145
French	640	593	587	571
German	241	239	232	237
Latin	91	82	75	73
Russian	6	6	7	4
Spanish	785	747	744	731
Other	25	21	26	25
Italian	1	1	1	1
Polish	1	—	--	1
Hebrew	--	1	3	3
Bilingual French	—	--	2	5
Bilingual Russian	--	2	2	2
Bilingual Spanish	26	70	125	176
Bilingual Italian	—	--	1	1
Bilingual Arabic	5	5	23	23
Bilingual other	8	9	15	21

TABLE IV-25. NUMBER OF TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS, BY ASSIGNMENT CATEGORY: 1975-1976 THROUGH 1978-1979, TOTAL REPORTING (cont.)

Category	1975-76	1976-77	1977-78	1978-79
Humanities	28	30	19	24
Early childhood education	133	155	134	158
Music education	3,423	3,244	3,262	3,280
Art	2,567	2,471	2,464	2,461
Health	256	258	264	276
Physical education	3,909	3,864	3,903	3,878
Recreation	17	21	21	20
Dance	5	5	10	8
Health and physical education	1,398	1,330	1,329	1,340
Driver and safety education	179	191	194	202
Library science	1,734	1,599	1,537	1,500
Adult education	185	118	134	277
Environmental studies	49	48	52	48
Nursery education	142	169	157	187
Counselor	3,158	3,108	3,173	3,146
Occupational therapy	144	206	221	275
Media specialist	286	372	410	416
Other	1,516	1,529	1,682	1,762
School nurse	—	282	298	287
Fine arts	48	49	53	47
Academic study of religion	2	2	2	1
Philosophy	18	12	10	9
Elementary grades	39,083	37,551	36,870	36,345
Junior high grades	1,979	1,916	2,024	2,277
Special Education				
Mentally handicapped	2,483	2,921	3,007	3,079
Speech correction	1,230	1,416	1,444	1,500
Orthopedically handicapped	221	279	285	288
School social worker	948	931	942	981
Emotionally disturbed	1,131	1,320	1,456	1,632
Diagnostician	197	176	157	144
Psychologist	401	475	532	564
Homebound and/or Hospital	154	176	166	165
Consultant-physically impaired	139	125	127	113
Education of the blind	88	142	155	160
Education of the deaf	377	452	467	471
Learning disabled	707	995	1,296	1,639
Teaching trainables	521	549	527	556
Consultant for mentally handicapped	218	217	223	243

SOURCE: Michigan Department of Education, special release.

TABLE IV-26. MICHIGAN NONPUBLIC SCHOOL INSTRUCTIONAL PERSONNEL SUMMARY: 1978-1979

	K-8 instructional personnel				9-12 instructional personnel				Total, K-12	
	Teachers	Admin-istrators	Other	Total	Teachers	Admin-istrators	Other	Total	Teachers	Total staff
Roman Catholic	3,575	328	238	4,141	1,747	106	151	2,004	5,322	6,145
Christian (NUCS)	515	37	15	567	256	12	35	303	771	870
Luth./Mo. Synod	752	36	10	798	104	7	11	122	856	920
Luth./Wisc. Synod	137	12	1	150	34	3	1	38	171	188
Seventh Day Adv.	153	5	1	159	80	7	3	90	233	249
Jewish	39	4	3	46	22	3	0	25	61	71
Baptist	171	25	11	207	105	14	11	130	276	337
Christian Science	4	1	0	5	0	0	0	0	4	5
Other	235	35	37	307	117	15	11	143	352	450
Unaffiliated	131	25	49	205	5	1	1	7	136	212
Mich. Assn. Chr. Schools	104	5	0	109	72	8	1	81	176	190
Independent	290	13	21	324	293	15	16	324	583	648
Seventh Day Adv. (Lake Reg. Conf.)	12	1	0	13	9	1	0	10	21	23
Total	6,118	527	386	7,031	2,844	192	241	3,277	8,962	10,308

SOURCE: Michigan Department of Education, special release.

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Alcona								
Alcona community schools	$ 1,261.33	83	$ 1,513.70	159	$ 15,695	162	1,346	364
Alger								
Burt twp school	1,317.69	72	1,847.95	36	13,282	398	141	527
Mathias twp school	697.88	295	1,704.32	72	12,389	481	154	525
Munising public schools	598.66	375	1,383.37	286	14,236	295	1,441	348
Rock River twp school	419.51	508	1,281.43	416	12,160	493	450	501
Allegan								
Plainwell comm school	597.27	377	1,269.54	437	15,173	198	2,778	191
Otsego public schools	570.37	405	1,246.65	462	13,219	404	2,816	187
Allegan public schools	512.37	458	1,246.86	461	14,298	283	3,077	175
Wayland union schools	496.61	469	1,351.35	332	13,654	364	2,604	208
Fennville public schools	451.35	496	1,696.18	73	17,986	56	1,825	295
Martin public schools	498.96	466	1,509.42	163	12,615	462	917	427
Hopkins public school	484.46	474	1,457.30	197	14,594	250	1,168	388
Saugatuck public schools	891.23	188	1,499.53	168	13,628	368	742	464
Hamilton comm schools	935.71	169	1,444.53	209	17,084	84	1,729	307
Alpena								
Alpena city school dist	867.36	204	1,394.01	265	16,460	116	8,349	42
Antrim								
Alba public school	1,235.43	87	1,627.77	96	10,608	528	215	523
Central Lake public school	1,219.69	92	1,408.15	252	12,084	499	599	482
Bellaire public school	1,431.34	51	1,488.63	174	13,815	343	605	480
Elk Rapids schools	1,379.23	60	1,512.66	160	12,769	449	1,127	403
Ellsworth comm school	1,424.64	53	1,502.16	166	10,135	529	278	517
Mancelona public school	1,056.49	130	1,233.05	481	13,218	405	1,137	400

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Arenac								
Arenac Eastern sch dist	$ 483.27	475	$ 1,342.33	347	$ 13,921	330	636	477
Au Gres Sims school dist	1,079.66	126	1,226.46	485	12,450	475	594	484
Standish Sterl comm sch dist	583.33	395	1,214.31	490	15,304	186	2,343	227
Baraga								
Baraga twp school dist	400.38	518	1,380.10	290	12,796	443	829	447
Loanse twp school dist	511.42	460	1,371.38	301	13,178	410	1,134	401
Barry								
Delton Kellogg sch dist	569.24	406	1,298.64	396	15,272	189	2,434	219
Hastings public sch dist	584.78	393	1,447.91	206	16,864	95	4,071	119
Thornapple Kellogg sch dist	599.33	373	1,341.27	349	15,104	204	2,077	259
Bay								
Bay City school dist	759.10	259	1,321.96	371	20,302	8	15,676	15
Bangor twp schools	660.51	321	1,249.06	458	16,242	133	4,093	117
Essexville Hampton sch dist	1,690.35	23	1,577.43	118	17,977	57	2,174	243
Pinconning Area schools	525.50	446	1,268.14	439	15,443	174	3,265	166
Benzie								
Benzie Co. Central schools	982.56	151	1,241.11	469	13,666	358	1,907	280
Frankfort Area schools	1,284.52	79	1,281.81	415	13,208	406	850	439
Berrien								
Benton Harbor City sch dist	576.84	399	1,587.74	112	14,621	247	9,961	32
St. Joseph City sch dist	1,325.34	69	1,514.87	157	18,661	37	3,713	135
Lakeshore school dist	647.48	336	1,298.22	397	14,305	282	3,938	128
River Valley school dist	825.00	223	1,333.31	361	12,718	453	2,053	265
Galien twp school	461.32	492	1,354.01	330	11,737	509	840	442
New Buffalo Area sch dist	961.34	155	1,213.71	492	12,532	470	1,235	381
Brandywine public sch dist	543.04	427	1,348.44	337	13,129	418	2,257	234

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Berrien (cont.)								
Berrien Springs public sch dist	$ 635.31	350	$ 1,655.16	88	$ 13,638	367	2,294	230
Eau Claire public sch dist	421.36	507	1,497.59	170	12,440	477	1,166	389
Niles comm school dist	783.72	243	1,543.58	139	14,732	238	5,698	75
Buchanan public school dist	851.83	212	1,285.28	410	13,073	421	2,267	233
Watervliet school dist	542.57	430	1,273.24	425	13,020	426	1,552	334
Coloma comm schools	568.16	407	1,336.48	353	13,481	384	3,010	178
Bridgman public school	2,603.30	1	1,939.13	29	11,739	508	888	432
Branch								
Coldwater comm school	727.32	281	1,305.81	389	13,463	385	4,338	108
Bronson comm school dist	657.66	324	1,237.65	474	13,462	386	1,607	326
Quincy comm school dist	587.14	388	1,194.67	501	12,717	454	1,522	342
Calhoun								
Albion city schools	715.93	285	1,636.10	91	14,416	269	3,115	174
Battle Creek public school	978.70	152	2,019.59	16	16,346	125	9,406	35
Springfield city sch dist	1,182.98	101	1,727.88	66	16,281	129	1,298	373
Athens Area schools	567.59	408	1,329.52	367	11,066	521	1,017	411
Harper Creek comm schools	537.94	436	1,458.89	196	15,313	184	3,237	167
Homer comm schools	478.95	476	1,265.40	443	12,931	434	1,327	368
Lakeview Cons school dist	948.09	159	1,625.49	97	18,811	33	4,438	102
Marshall public schools	733.53	277	1,463.38	193	14,341	278	3,198	169
Pennfield school dist	678.94	306	14,00.82	259	14,546	258	2,094	256
Tekonsha comm school	554.13	419	1,384.72	284	12,308	486	660	475
Union City comm school dist	468.74	485	1,357.25	326	13,609	370	1,554	333
Cass								
Cassopolis public schools	805.89	232	1,399.32	261	12,446	476	1,958	274
Dowagiac Union schools	596.69	378	1,334.02	358	12,635	460	3,845	131
Edwardsburg public schools	654.94	329	1,359.37	320	12,994	430	2,211	238
Marcellus comm schools	605.46	370	1,369.87	306	13,174	412	1,138	399

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Charlevoix								
Beaver Island comm schools	$ 1,185.06	99	$ 1,850.85	35	$ 14,384	273	54	530
Boyne City pub sch dist	926.06	171	1,393.54	267	14,929	219	1,540	338
Boyne Falls public sch dist	1,583.27	31	1,524.93	151	14,394	272	255	519
Charlevoix pub sch dist	1,367.20	62	1,390.90	271	14,547	256	1,714	309
East Jordon pub sch dist	859.79	209	1,399.28	262	15,355	180	1,285	376
Cheboygan								
Cheboygan Area schools	733.68	276	1,213.73	491	14,633	244	2,807	188
Inland Lakes school dist	1,302.45	76	1,439.34	213	11,858	503	912	428
Mackinaw City public sch	1,656.05	24	1,577.32	119	10,656	527	256	518
Wolverine comm school dist	867.25	205	1,532.15	145	10,739	526	426	505
Chippewa								
Sault Ste Marie Area school	529.21	443	1,556.04	134	14,905	223	4,587	99
Detour Area schools	1,621.82	28	1,714.94	68	13,664	359	441	503
Pickford public schools	850.39	215	1,348.25	338	14,183	302	433	504
Rudyard Area schools	408.30	511	1,839.84	40	18,852	31	1,010	413
Brimley public schools	525.40	447	1,539.03	141	13,711	353	493	494
Whitefish schools	1,548.74	35	1,926.73	31	11,310	517	113	529
Clare								
Clare public schools	684.75	301	1,406.61	253	15,203	195	1,787	300
Farwell Area schools	1,162.89	106	1,478.91	182	13,491	382	1,562	330
Harrison comm schools	831.93	221	1,245.42	464	13,711	353	2,181	242
Clinton								
DeWitt public schools	564.12	412	1,386.08	282	12,112	497	1,928	279
Fowler public schools	508.12	463	1,283.81	414	12,556	466	815	450
Bath comm schools	487.94	472	1,285.75	409	13,409	389	1,361	359
Ovid Elsie Area schools	667.24	315	1,390.47	272	15,374	176	2,405	220
Pewamo-Westphalia comm school dist	655.65	327	1,307.09	387	12,669	458	970	420
St. Johns public schools	653.71	332	1,279.46	419	15,830	152	4,395	106

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Crawford								
Crawford Ausable schools	$ 940.40	163	$ 1,224.07	486	$ 14,205	299	2,142	249
Delta								
Escanaba Area public sch	795.82	239	1,425.06	229	16,250	132	4,959	92
Gladstone public sch dist	372.13	524	1,269.34	438	14,086	311	2,364	224
Rapid River public schools	643.26	342	1,270.43	434	11,787	506	737	465
Big Bay De Noc school dist	1,006.62	146	1,312.23	384	11,411	516	563	488
Bark River Harris sch dist	307.62	529	1,315.14	380	14,761	233	825	448
Mid Peninsula sch dist	520.42	453	1,333.56	360	12,465	472	561	489
Dickinson								
Iron Mountain City sch dist	812.57	231	1,417.25	239	14,736	237	1,461	346
Norway Vulcan Area schools	666.95	316	1,500.77	167	15,229	193	953	421
Breitung twp school dist	596.23	379	1,249.03	459	17,428	71	2,512	211
North Dickinson Co sch dist	975.38	153	1,556.36	133	14,630	246	639	476
Eaton								
Bellevue comm schools	502.58	465	1,418.57	236	14,471	265	1,304	372
Charlotte public schools	640.00	347	1,292.22	407	14,096	310	4,099	116
Eaton Rapids public schools	520.52	452	1,295.42	402	14,547	256	3,479	149
Grand Ledge public schools	703.80	292	1,373.94	296	14,701	241	5,876	68
Maple Valley school dist	380.71	522	1,216.49	487	14,818	225	1,958	274
Olivet comm schools	626.86	358	1,379.54	291	12,413	479	1,294	374
Potterville public schools	517.05	455	1,304.73	391	12,938	432	939	422
Emmet								
Harbor Springs school dist	1,264.13	82	1,422.03	233	14,283	285	886	433
Littlefield public sch dist	771.61	246	1,373.34	299	13,059	423	455	500
Pellston public school dist	1,003.50	147	1,215.59	488	13,507	380	866	434
Petoskey school dist	1,438.81	48	1,620.27	99	15,303	187	2,736	196

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Genesee								
Flint City school dist	$ 924.39	172	$ 1,760.32	53	$ 16,397	122	38,086	2
Grand Blanc comm schools	1,001.52	148	1,470.52	187	16,647	107	7,670	48
Mt Morris cons. schools	662.51	320	1,400.98	258	15,215	194	3,612	140
Goodrich Area school dist	739.96	270	1,387.20	278	16,983	88	1,659	319
Bendle public school dist	417.60	509	1,270.68	432	16,582	109	2,056	264
Genesee school dist	486.40	473	1,396.08	263	13,939	328	845	440
Carman -Ainsworth comm sch	1,503.66	37	1,736.22	62	19,260	22	7,838	45
Fenton Area public schools	765.53	252	1,417.14	240	17,207	81	3,479	149
Kearsley comm schools	620.26	360	1,445.62	208	16,254	130	4,891	94
Flushing comm schools	633.72	354	1,364.72	312	15,337	182	5,762	72
Atherton comm sch dist	872.21	198	1,499.53	168	16,286	127	1,931	278
Davison comm schools	578.04	398	1,408.33	251	16,283	128	5,854	69
Clio Area school dist	474.36	480	1,141.31	516	13,671	357	5,527	78
Swartz Creek comm sch dist	745.51	267	1,350.48	334	17,780	61	5,902	67
Lake Fenton schools	746.59	266	1,438.76	214	16,677	106	2,063	262
Westwood Heights sch dist	898.58	182	1,590.86	109	16,813	98	1,866	287
Bentley comm school dist	583.86	394	1,370.71	304	16,115	136	1,985	273
Beecher school dist	537.44	438	1,590.08	111	16,801	99	5,589	77
Linden comm school dist	655.74	325	1,476.68	184	15,086	205	2,724	198
Montrose twp schools	467.83	486	1,258.04	451	13,645	366	2,115	254
Lakeville comm school dist	470.02	482	1,345.20	342	16,056	140	3,319	163
Gladwin								
Beaverton Rural schools	677.85	309	1,317.45	375	15,726	158	1,868	286
Gladwin comm schools	880.06	193	1,359.10	321	14,812	226	2,094	256
Gogebic								
Bessemer City sch dist	508.82	462	1,486.08	177	14,012	318	564	487
Ironwood Area schools	585.39	392	1,428.74	226	15,199	196	2,071	260
Marenisco school dist	1,651.32	25	2,105.27	8	12,141	495	148	526
Wakefield twp sch dist	593.98	381	1,350.08	336	13,492	381	720	470
Watersmeet twp sch dist	1,327.07	68	1,960.71	25	13,207	407	227	521

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Grand Traverse								
Traverse City pub sch dist	$ 945.58	160	$ 1,311.78	385	$ 14,787	231	9,911	33
Buckley comm school dist	1,102.06	118	1,424.63	230	10,900	524	305	515
Kingsley Area school dist	640.37	346	1,155.87	513	13,220	403	765	459
Gratiot								
Alma public schools	642.10	344	1,440.01	212	16,769	102	3,560	142
Ashley comm schools	424.66	505	1,361.17	315	12,610	464	592	485
Breckenridge comm schools	636.85	349	1,288.19	408	13,911	334	1,555	332
Fulton schools	646.32	339	1,300.99	394	14,504	264	1,199	385
Ithaca public schools	682.81	302	1,421.05	235	14,939	217	1,949	276
Saint Louis pub schools	587.95	387	1,371.00	302	14,687	242	1,866	287
Hillsdale								
Camden Frontier schools	618.02	361	1,242.84	468	13,823	342	790	455
Hillsdale comm school	737.88	272	1,323.94	370	14,782	232	2,645	205
Jonesville comm school	552.74	420	1,279.15	420	13,655	361	1,341	365
Litchfield comm schools	685.99	300	1,292.92	405	13,791	347	794	454
North Adams public schools	589.77	384	1,334.99	356	12,085	498	767	458
Pittsford Rural ag schools	586.30	390	1,272.81	427	12,863	439	833	445
Reading comm schools	599.65	372	1,264.62	446	13,939	328	1,158	393
Waldron Area schools	748.52	264	1,280.91	417	11,245	518	585	486
Houghton								
Hancock City sch dist	676.75	310	1,333.30	362	13,655	361	1,142	397
Adams twp school dist	477.05	478	1,534.02	143	13,689	355	596	483
Calumet public sch dist	456.68	493	1,280.27	418	14,266	286	2,024	268
Chassell twp school dist	586.12	391	1,147.69	515	11,842	504	377	509
Osceola twp school dist	408.26	512	1,266.94	441	12,341	483	425	506
Portage twp school dist	537.23	439	1,284.83	411	14,727	239	1,307	371
Lake Linden Hubbell sch dist	519.80	454	1,244.79	465	13,404	390	736	466

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Huron								
Bad Axe public schools	$ 507.25	464	$ 1,133.97	519	$ 13,300	397	1,664	318
Caseville public schools	1,607.97	29	1,667.97	83	12,389	481	306	514
Elkton Pigeon Bayport school dist	1,301.01	77	1,409.73	249	13,486	383	1,571	329
Harbor Beach comm schools	1,213.90	93	1,390.47	272	11,166	520	1,133	402
North Huron schools	1,032.51	135	1,316.44	376	12,770	448	666	474
Owendale Gagetown Area S D	1,433.50	50	1,657.45	86	13,860	340	468	498
Port Austin public school	1,479.53	38	1,450.80	202	12,708	455	328	511
Port Hope comm schools	1,444.42	45	1,598.06	107	13,328	395	209	524
Ubly comm schools	509.26	461	1,058.06	529	12,168	491	1,364	358
Ingham								
East Lansing sch dist	1,701.41	21	1,949.36	27	16,563	111	4,829	96
Lansing public sch dist	891.27	187	1,838.77	41	17,170	82	30,675	5
Dansville Ag school	740.11	269	1,392.52	269	14,244	294	1,100	406
Haslett public schools	818.51	224	1,564.36	131	16,703	105	2,090	258
Holt public schools	573.84	404	1,486.35	176	14,797	227	4,522	100
Leslie public schools	555.20	417	1,380.26	289	14,760	234	1,827	293
Mason public schools	678.25	308	1,359.58	318	15,379	175	3,503	146
Okemos public schools	1,338.75	65	1,666.88	84	15,174	197	3,364	159
Stockbridge comm schools	651.18	334	1,394.87	264	14,002	321	2,170	244
Waverly schools	1,597.34	30	1,762.64	51	15,492	171	4,139	115
Webberville public schools	653.80	330	1,502.38	165	14,617	249	852	438
Williamston comm schools	846.03	217	1,532.80	144	16,078	138	1,884	284
Ionia								
Ionia public schools	466.46	488	1,356.90	328	14,470	266	3,443	153
Belding Area school dist	440.00	501	1,272.22	428	15,920	143	2,607	206
Lakewood public schools	532.06	440	1,418.02	237	12,743	451	3,185	170
Portland public sch dist	525.87	444	1,233.62	480	13,071	422	2,279	232
Saranac comm school dist	541.68	433	1,468.55	189	13,543	375	1,122	404

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Iosco								
Oscoda Area schools	$ 565.15	411	$ 1,378.50	292	$ 15,742	156	4,093	117
Hale Area schools	1,383.94	59	1,433.92	222	13,411	388	810	452
Tawas Area schools	1,035.20	133	1,168.38	510	14,219	297	1,882	285
Whittemore Prescott Area sch	646.02	340	1,257.62	453	14,288	284	1,540	338
Iron								
Forest Park school dist	1,235.21	88	1,347.34	339	15,110	203	892	430
West Iron county sch dist	765.75	251	1,546.66	137	17,294	74	1,827	293
Isabella								
Mt Pleasant City sch dist	954.33	157	1,634.73	92	17,705	64	4,706	98
Beal City school dist	423.74	506	1,272.21	429	13,304	396	722	468
Sheperd public sch dist	474.35	481	1,337.22	352	14,264	287	2,001	271
Jackson								
Western school dist	674.36	311	1,408.71	250	14,850	224	2,380	221
Vandercook Lake pub sch dist	407.53	514	1,210.29	493	13,655	361	1,355	361
Columbia school dist	841.45	218	1,293.35	403	13,915	333	2,299	229
Grass Lake comm school	818.46	225	1,387.01	279	13,563	374	975	416
Concord comm schools	630.51	355	1,434.30	220	14,943	215	1,162	390
East Jackson public schools	575.97	401	1,389.56	275	15,073	206	1,850	289
Hanover Horton schools	710.09	289	1,315.39	379	12,419	478	1,425	350
Michigan Center sch dist	800.85	235	1,438.44	215	16,850	96	1,799	298
Napoleon school dist	666.50	317	1,234.22	478	14,585	251	1,833	292
Northwest school dist	710.47	288	1,384.21	285	15,798	154	3,960	127
Springport public schools	635.30	351	1,360.31	317	14,115	306	1,180	387
Jackson public schools	1,023.94	139	1,752.65	56	18,211	45	11,384	25
Kalamazoo								
Kalamazoo City school dist	1,439.03	47	2,034.48	14	16,421	120	14,477	18

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Kalamazoo (cont.)								
Climax Scotts comm schools	$ 629.10	356	$ 1,446.86	207	$ 11,988	500	819	449
Comstock public schools	1,429.24	52	1,571.40	126	17,632	66	3,156	171
Galesburg Augusta comm S D	645.25	341	1,572.82	124	12,928	436	1,511	343
Gull Lake comm school	940.27	164	1,495.81	173	16,565	110	2,905	184
Parchment school dist	917.82	177	1,450.78	203	15,732	157	2,151	247
Portage public schools	943.25	162	1,529.67	147	16,477	115	10,279	30
Schoolcraft comm schools	848.09	216	1,369.78	307	11,705	510	923	426
Vicksburg comm school	628.42	357	1,357.82	325	15,260	191	2,946	182
Kalkaska								
Forest Area comm school	938.50	168	1,421.97	234	11,539	514	629	478
Kalkaska public schools	1,181.10	102	1,436.65	219	12,931	434	1,889	283
Kent								
Grand Rapids City sch dist	738.80	271	1,802.16	44	15,482	172	37,407	3
Godwin Heights public sch	1,765.44	18	2,072.05	12	16,520	114	2,337	228
Northview public sch dist	647.20	337	1,461.33	194	15,720	160	3,588	141
Wyoming public schools	792.00	241	1,650.64	89	16,709	104	7,735	46
Byron Center public school	922.95	173	1,455.22	199	14,105	308	1,630	323
Caledonia comm schools	871.24	200	1,361.55	314	13,601	372	2,215	237
Cedar Springs public schools	512.10	459	1,343.26	344	14,927	220	2,549	209
Comstock Park school dist	554.74	418	1,547.68	136	15,871	150	1,707	311
E. Gr. Rapids public schs	1,265.99	81	1,728.38	64	17,701	65	2,753	194
Forest Hills public schools	1,199.69	95	1,576.52	120	16,065	139	5,067	89
Godfrey Lee public sch dist	867.17	206	1,486.38	175	15,899	146	1,201	384
Grandville public schools	839.88	219	1,334.24	357	15,911	145	4,350	107
Kelloggsville pub schools	886.33	192	1,584.89	113	15,607	166	2,187	241
Kenowa Hills public schools	1,091.60	120	1,391.74	270	15,019	210	3,293	164
Kent City comm schools	462.50	491	1,381.42	288	14,790	230	1,545	336
Kentwood public schools	871.68	199	1,484.47	178	15,699	161	7,160	53

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Kent (cont.)								
Lowell area schools	$ 580.87	397	$ 1,345.30	341	$ 13,253	401	3,155	172
Rockford public schools	653.72	331	1,378.07	293	17,261	77	4,229	113
Sparta area schools	613.81	365	1,430.28	224	15,885	149	2,654	204
Lake								
Baldwin public school dist	1,752.69	19	2,088.67	10	13,153	416	974	417
Lapeer								
Lapeer public schools	615.88	363	1,235.70	476	14,620	248	8,617	40
Almont comm schools	653.25	333	1,187.07	507	14,984	212	1,547	335
Dryden comm schools	692.88	299	1,264.40	447	13,221	402	837	443
Imlay City comm schools	697.53	296	1,331.12	364	17,050	86	2,344	226
North Branch area schools	443.18	500	1,238.17	473	16,312	126	2,436	218
Leelanau								
Glen Lake comm sch dist	1,166.87	104	1,483.86	179	13,959	325	797	453
Leland public school dist	1,703.68	20	2,008.15	18	13,954	327	321	513
Northport public sch dist	1,649.72	26	1,945.86	28	13,510	379	298	516
Suttons Bay public sch dist	901.87	180	1,317.83	373	13,372	391	757	460
Lenawee								
Adrian City school dist	802.17	234	1,460.82	195	15,889	148	5,695	76
Addison comm schools	740.33	268	1,197.29	499	13,355	392	1,608	325
Blissfield comm schools	1,112.11	116	1,333.25	363	13,921	330	1,782	302
Britton Macon area school	961.86	154	1,258.68	449	12,455	473	604	481
Clinton comm schools	814.28	230	1,317.85	372	12,775	447	1,287	375
Deerfield public schools	762.60	254	1,191.10	503	12,199	489	526	491
Hudson Area schools	599.19	374	1,325.71	369	16,560	112	1,492	344
Madison school dist	1,080.89	124	1,442.32	211	13,016	427	864	436
Morenci Area schools	634.93	352	1,165.51	511	12,454	474	1,090	408

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Lenawee (cont.)								
Onsted comm schools	$ 641.05	345	$ 1,132.22	520	$ 11,970	502	1,718	308
Sand Creek comm schools	794.68	240	1,393.89	266	12,745	450	989	414
Tecumseh public schools	771.59	247	1,410.25	247	16,924	93	3,644	138
Livingston								
Brighton Area schools	782.73	244	1,438.22	217	15,264	190	5,398	81
Fowlerville comm schools	734.88	275	1,411.15	244	14,416	269	2,236	236
Hartland cons schools	818.28	226	1,360.76	316	15,049	209	3,327	162
Howell public schools	878.63	194	1,373.71	298	14,940	216	6,284	62
Pinckney comm schools	758.51	260	1,292.44	406	14,563	254	3,474	151
Luce								
Tahquamenon Area schools	576.26	400	1,255.93	454	14,361	274	1,792	299
Mackinac								
St. Ignace City sch dist	427.40	504	1,474.82	185	12,180	490	1,027	410
Les Cheneaux comm sch dist	1,385.16	58	1,450.59	204	12,616	461	463	499
Engadine cons schools	1,030.82	136	1,231.42	483	13,143	417	533	490
Mackinac Island pub sch dist	1,448.28	43	1,548.47	135	10,113	530	136	528
Macomb								
Center Line public schools	1,444.55	44	1,693.15	74	20,103	13	4,885	95
East Detroit City sch dist	874.94	197	1,740.31	61	17,273	76	9,794	34
Roseville comm schools	919.13	176	1,528.83	149	19,749	16	10,708	27
Anchor Bay school dist	549.70	424	1,273.36	424	14,536	260	4,743	97
Armada Area schools	864.13	208	1,426.45	228	16,253	131	1,673	314
Clintondale public schools	566.07	410	1,689.73	75	18,368	41	5,420	80
Chippewa Valley schools	921.20	174	1,570.06	127	16,418	121	5,293	82
Fitzgerald public schools	1,307.89	75	1,919.51	32	18,844	32	4,257	111
Fraser public schools	766.77	248	1,509.63	162	18,280	42	7,634	49

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Macomb (cont.)								
Lake Shore public schools	$ 678.91	307	$ 1,575.20	122	$ 19,010	27	7,482	51
Lakeview public schools	957.72	156	1,753.23	55	17,997	54	5,491	79
L'Anse Creuse public schools	1,138.24	111	1,742.29	60	16,367	123	8,619	39
Mt. Clemens comm school dist	1,058.91	129	1,766.58	49	16,552	113	5,189	84
New Haven comm schools	858.20	210	1,470.36	188	15,843	151	1,366	357
Richmond comm schools	1,138.78	109	1,577.49	117	15,548	169	2,016	270
Romeo comm schools	1,120.36	114	1,684.65	76	15,913	144	5,103	88
South Lake schools	1,580.24	32	1,676.26	78	16,980	89	3,767	133
Utica comm schools	761.26	255	1,404.93	255	16,947	91	28,273	7
Van Dyke comm schools	1,138.31	110	1,728.02	65	17,899	59	5,972	66
Warren cons schools	1,166.79	105	1,521.79	152	18,145	47	31,155	4
Warren Woods public schools	735.90	274	1,616.17	100	18,016	53	7,606	50
Manistee								
Bear Lake sch dist	900.98	181	1,339.73	350	13,799	344	522	492
Kaleva Norman-Dickson schs	1,188.22	98	1,370.48	305	13,116	419	777	456
Onekema cons schools	1,015.41	144	1,344.99	343	13,053	425	751	461
Manistee City schools	890.20	191	1,266.54	442	14,356	275	2,536	210
Marquette								
Nice comm schools	944.40	161	1,530.47	146	14,025	316	1,849	290
Gwinn Area comm schools	240.24	530	1,497.47	171	15,248	192	3,486	148
Negaunee public schs	892.31	184	1,434.27	221	14,912	222	2,044	267
Republic Michigamme schools	1,858.26	14	1,977.24	23	16,889	94	486	496
Marquette City school dist	1,017.94	142	1,388.94	276	13,716	352	5,154	85
Ishpeming public school dist	681.79	303	1,362.64	313	14,754	235	1,696	313
Mason								
Mason Co Central sch dist	543.02	428	1,235.40	477	13,961	324	1,783	301
Mason Co Eastern sch dist	725.57	282	1,438.07	218	13,865	339	696	472
Freesoil comm school dist	597.64	376	1,122.08	522	11,987	501	224	522
Ludington Area sch dist	1,694.11	22	1,713.37	69	16,779	101	2,930	183

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Mecosta								
Big Rapids public schools	$ 736.83	273	$ 1,314.78	381	$ 15,665	165	2,370	223
Chippewa Hills school dist	1,024.87	137	1,315.74	378	14,345	277	2,745	195
Morley Stanwood comm schools	785.40	242	1,181.61	508	12,857	440	1,348	363
Menominee								
Carney Nadeau public schools	573.85	403	1,386.83	281	12,538	468	358	510
Menominee Area pub schools	679.53	305	1,388.61	277	13,754	350	2,790	190
North-Central Area schools	428.17	503	1,312.26	383	13,011	428	857	437
Stephenson Area pub school	648.21	335	1,120.21	524	13,161	415	1,281	377
Midland								
Midland City school dist	1,517.93	36	1,583.34	114	16,619	108	11,319	26
Bullock Creek sch dist	799.50	237	1,367.12	310	12,537	469	2,280	231
Coleman comm school dist	542.02	431	1,373.77	297	13,897	335	1,441	348
Meridian pub school dist	551.22	423	1,401.33	257	14,256	289	2,144	248
Missaukee								
Lake City Area sch dist	732.80	278	1,070.95	528	11,432	515	1,159	391
McBain Rural Ag sch dist	703.71	293	1,231.18	484	13,681	356	735	467
Monroe								
Monroe City public schools	1,420.60	55	1,520.36	154	16,784	100	8,896	37
Airport comm school dist	766.72	249	1,409.79	248	14,221	296	3,434	154
Bedford pub school dist	541.70	432	1,342.26	348	16,150	134	6,761	58
Dundee comm school dist	799.58	236	1,270.23	435	14,192	301	1,949	276
Ida public school dist	617.14	362	1,376.35	294	15,172	199	2,114	255
Jefferson cons school dist	1,087.15	123	1,410.90	246	14,795	228	2,774	192
Mason cons school dist	835.97	220	1,297.10	400	15,014	211	2,132	252
Summerfield school dist	538.15	432	1,438.24	216	13,957	326	1,326	369
Whiteford Ag school dist	850.91	214	1,358.80	322	14,174	303	1,098	407

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Montcalm								
Carson City Crystal Area school district	$ 575.44	402	$ 1,306.43	388	$ 14,423	268	1,666	316
Montabella comm sch dist	589.70	385	1,270.14	436	13,757	349	1,593	328
Greenville public schools	607.21	367	1,206.68	494	14,526	262	3,691	136
Tri-co Area schools	514.20	456	1,284.51	412	14,016	317	1,668	315
Lakeview comm schools	563.48	413	1,250.75	456	14,209	298	2,019	269
Central Montcalm pub sch	447.47	498	1,481.22	181	14,167	304	2,060	263
Vestaburg comm schools	350.59	528	1,264.68	445	11,790	505	929	424
Montmorency								
Atlanta comm schools	1,175.54	103	1,316.14	377	12,671	457	628	479
Hillman comm schools	1,286.05	78	1,403.96	256	12,648	459	713	471
Muskegon								
Muskegon City school dist	668.58	314	1,980.30	22	15,893	147	8,644	38
Muskegon Hgts City sch dist	400.34	519	1,666.00	85	14,255	290	3,431	155
Mona Shores school dist	939.87	165	1,574.00	123	17,752	63	5,106	87
Oakridge school dist	359.28	526	1,376.26	295	13,603	371	1,891	282
Fruitport comm schools	386.44	520	1,305.57	390	15,695	162	3,801	132
Holton public schools	406.66	516	1,297.14	399	13,985	322	1,107	405
Montague Area pub schools	756.25	261	1,528.91	148	14,544	259	1,735	306
Orchard View schools	465.73	489	1,372.59	300	15,066	207	3,288	165
Ravenna public schools	467.69	487	1,350.16	335	13,970	323	1,385	352
Reeths Puffer schools	729.70	280	1,358.05	324	16,033	141	3,999	124
North Muskegon City sch dist	988.75	149	1,457.21	198	14,252	293	1,014	412
White Hall dist schools	655.35	328	1,517.87	155	14,645	2,167	245	
Newaygo								
Fremont public sch dist	760.46	257	1,358.74	323	15,494	170	2,722	199
Grant public school dist	407.14	515	1,193.09	502	14,938	218	1,761	303
Hesperia comm school dist	469.54	483	1,273.00	426	13,418	387	1,152	394

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Newaygo (cont.)								
Newaygo public sch dist	$ 951.04	158	$ 1,137.37	517	$ 13,195	409	1,350	362
White Cloud public schools	561.80	414	1,257.97	452	15,305	185	1,310	370
Oakland								
Birmingham City sch dist	2,014.32	7	2,177.77	6	19,947	14	11,770	22
Ferndale City school dist	986.58	150	1,798.64	45	18,217	43	6,533	60
Pontiac City school dist	891.89	186	1,957.05	26	18,058	50	22,337	9
Royal Oak City sch dist	1,473.87	39	2,147.34	7	19,032	26	12,327	20
Berkley City school dist	1,210.79	94	1,845.47	38	17,296	73	6,186	64
Southfield public sch dist	2,164.07	2	2,323.04	4	19,104	24	11,931	21
Avondale school dist	877.59	195	1,597.90	108	18,117	48	3,551	143
Bloomfield Hills sch dist	1,910.38	11	2,004.77	19	17,494	68	8,373	41
Clarenceville school dist	1,125.16	113	1,710.62	70	18,034	51	2,860	186
Novi comm school dist	1,462.91	41	1,674.80	79	15,478	173	3,057	176
Oxford Area comm sch dist	851.92	211	1,370.77	303	13,845	341	3,504	145
Hazel Park City sch dist	590.78	383	1,630.26	95	19,372	19	7,454	52
Madison Hgts school dist	606.49	368	1,610.71	102	17,484	69	3,897	130
Troy public schools	1,272.83	80	1,655.73	87	18,476	39	11,514	23
West Bloomfield twp sch dist	1,336.76	66	1,608.67	105	16,836	97	5,757	74
Brandon school dist	658.88	322	1,300.56	395	13,079	420	2,964	181
Clarkston comm sch dist	658.59	323	1,478.34	183	15,370	178	7,007	56
Farmington pub school dist	1,436.31	49	1,893.87	33	18,942	30	13,931	19
Holly Area school dist	655.72	326	1,368.98	309	15,774	155	4,435	104
Huron Valley schools	814.94	228	1,567.67	129	16,750	103	10,338	29
Lake Orion comm sch dist	669.53	312	1,465.85	191	13,879	338	6,381	61
So Lyon comm schools	870.37	201	1,346.95	340	14,101	309	4,335	109
Oak Park City sch dist	2,060.35	5	2,662.16	1	20,155	12	4,143	114
Rochester comm sch dist	1,073.72	128	1,453.59	200	16,458	117	10,404	28
Clawson City school dist	851.53	213	1,521.75	153	16,977	90	3,508	144
Lamphere public schools	1,624.67	27	2,080.12	11	19,592	17	4,047	120
Walled Lake cons sch dist	1,024.21	138	1,575.68	121	17,093	83	11,435	24
Waterford school dist	719.99	284	1,720.48	67	17,248	79	17,156	13

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Oceana								
Hart public school dist	$ 646.85	338	$ 1,429.27	225	$ 14,531	261	1,899	281
Pentwater public sch dist	1,454.25	42	1,581.67	115	13,512	378	324	512
Shelby public sch dist	488.85	470	1,296.70	401	15,374	176	1,559	331
Walkerville comm sch dist	462.74	490	1,338.39	351	14,109	307	443	502
Ogemaw								
W Branch Rose City Area schs	1,101.76	119	1,410.96	245	14,397	271	2,763	193
Ontonagon								
Bergland comm sch dist	870.00	202	1,767.04	48	12,788	445	240	520
Ewen Trout Creek cons S D	478.15	477	1,559.16	132	12,933	433	722	468
Ontonagon Area schools	523.59	449	1,393.27	268	13,007	429	1,376	354
White Pine school dist	1,470.97	40	1,609.34	103	14,205	299	487	495
Osceola								
Evart public schools	865.66	207	1,270.65	433	13,662	360	1,267	379
Marion public schools	697.40	297	1,303.64	392	14,039	314	928	425
Pine River Area schools	715.82	286	1,359.56	319	12,789	444	1,369	356
Reed City public schools	760.53	256	1,161.39	512	14,468	267	2,119	253
Oscoda								
Mio Au Sable sch dist	1,007.53	145	1,238.30	472	12,742	452	892	430
Fairview High school dist	1,417.39	56	1,390.47	272	12,410	480	509	493
Otsego								
Gaylord comm schools	1,103.88	117	1,262.40	448	13,779	348	2,695	201
Johannesburg-Central sch	1,390.26	57	1,515.39	156	13,919	332	747	462
Vanderbilt Area school	932.46	170	1,200.95	497	11,599	513	412	507
Ottawa								
Grand Haven City sch dist	1,222.16	91	1,570.05	128	15,721	159	5,766	71

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Ottawa (cont.)								
Holland City school dist	$ 1,080.46	125	$ 1,579.10	116	$ 15,298	188	5,273	83
Allendale public sch dist	704.19	291	1,335.96	354	12,918	437	812	451
West Ottawa pub sch dist	825.24	222	1,564.69	130	17,604	67	4,454	101
Coopersville pub sch dist	614.05	364	1,465.07	192	14,570	253	2,375	222
Jenison public schools	552.10	421	1,264.69	444	14,356	275	4,968	91
Hudsonville pub sch dist	713.23	287	1,199.62	498	14,681	243	2,452	215
Spring Lake pub sch dist	765.99	250	1,613.46	101	17,993	55	2,162	246
Zeeland public sch dist	1,133.64	112	1,366.24	311	15,554	168	2,469	214
Presque Isle								
Onaway Area comm sch dist	939.65	166	1,135.35	518	13,198	408	1,334	367
Posen cons sch dist	1,247.88	86	1,428.56	227	12,967	431	479	497
Rogers Union school dist	1,033.88	134	1,271.90	430	15,152	201	1,339	366
Roscommon								
Gerrish Higgins sch dist	1,257.16	84	1,453.17	201	14,323	279	1,656	320
Houghton Lake comm schools	1,147.55	108	1,414.12	241	14,581	252	1,753	305
Saginaw								
Saginaw City sch dist	876.17	196	1,761.36	52	16,992	87	18,788	11
Carrollton sch dist	548.10	425	1,608.75	104	14,260	288	1,991	272
Saginaw twp comm schools	1,195.04	97	1,525.08	150	17,946	58	7,145	54
Buena Vista sch dist	1,316.90	73	1,728.71	63	17,432	70	2,712	200
Chesaning Union schools	529.99	441	1,308.13	386	14,723	240	3,733	134
Birch Run Area sch dist	407.65	513	1,187.79	504	13,587	373	2,683	202
Bridgeport comm sch dist	497.37	468	1,431.75	223	16,126	135	5,064	90
Frankenmuth school dist	1,325.11	70	1,424.49	231	15,347	181	1,529	341
Freeland comm sch dist	699.92	294	1,473.85	186	15,063	208	1,713	310
Hemlock public sch dist	814.56	229	1,342.83	346	14,737	236	2,188	240
Merrill comm sch dist	613.78	366	1,541.84	140	15,320	183	1,455	347

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Saginaw (cont.)								
St. Charles comm sch dist	$ 529.59	442	$ 1,335.93	355	$ 14,312	281	1,756	304
Swan Valley school dist	588.75	386	1,384.75	283	14,254	291	2,606	207
St. Clair								
Port Huron Area sch dist	642.34	343	1,513.89	158	16,439	118	15,606	16
Algonac comm sch dist	796.97	238	1,267.43	440	14,318	280	3,454	152
Capac comm sch dist	595.96	380	1,544.35	138	14,128	305	1,700	312
East China twp sch dist	1,252.49	85	1,422.48	232	16,006	142	5,145	86
Marysville pub sch dist	1,155.84	107	1,510.10	161	16,927	92	2,510	212
Memphis comm schools	525.74	445	1,277.42	422	13,533	376	1,215	383
Yale public sch dist	731.00	279	1,326.04	368	13,882	337	2,247	235
St. Joseph								
Sturgis City sch dist	915.25	178	1,387.01	279	15,161	200	3,117	173
Burr Oak comm sch dist	637.53	348	1,353.05	331	10,934	523	411	508
Centerville pub sch dist	544.50	426	1,330.72	365	12,778	446	973	418
Colon comm sch dist	764.20	253	1,405.79	254	11,681	511	1,090	408
Constantine pub sch dist	621.73	359	1,276.00	423	12,611	463	1,666	316
Mendon comm school dist	633.82	353	1,369.25	308	11,764	507	906	429
White Pigeon comm sch dist	892.06	185	1,206.23	495	12,554	467	1,537	340
Three Rivers pub sch dist	750.83	263	1,293.11	404	14,004	320	3,421	157
Sanilac								
Brown City comm sch dist	566.39	409	1,239.44	470	13,350	393	1,267	379
Carsonville Port Sanilac schs	752.26	262	1,237.55	475	11,052	522	844	441
Croswell Lexington comm S D	759.53	258	1,284.24	413	15,685	164	2,729	197
Deckerville comm sch dist	868.86	203	1,242.88	467	13,166	414	1,152	394
Marlette comm sch dist	669.48	313	1,382.41	287	12,154	494	1,841	291
Peck comm sch dist	551.39	422	1,244.14	466	10,872	525	685	473
Sandusky comm sch dist	666.35	318	1,129.39	521	13,257	400	1,628	324

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Schoolcraft								
Manistique Area schools	$ 680.89	304	$ 1,249.68	457	$ 13,798	345	1,812	296
Shiawassee								
Byron Area schools	558.44	415	1,246.09	463	12,814	422	1,403	351
Durand Area schools	513.72	457	1,333.80	359	16,422	119	3,209	168
Laingsburg comm sch dist	468.80	484	1,201.27	496	12,326	484	1,159	391
Morrice Area schools	382.79	521	1,120.71	523	12,226	488	978	415
New Lothrop Area pub S D	401.83	517	1,152.34	514	13,275	399	1,479	345
Perry public school dist	488.53	471	1,330.16	366	14,005	319	2,048	266
Corunna pub sch dist	542.61	429	1,214.82	489	14,561	255	2,975	180
Owosso pub school dist	664.08	319	1,251.49	455	14,954	213	5,843	70
Tuscola								
Akron Fairgrove schools	1,355.49	64	1,317.82	374	13,723	351	971	419
Caro comm schools	555.92	416	1,232.28	482	12,161	492	3,030	177
Cass City pub schools	524.41	448	1,048.66	530	12,129	496	2,138	250
Kingston comm schools	537.70	437	1,239.21	471	12,313	485	865	435
Mayville comm schools	449.83	497	1,258.56	450	14,791	229	1,655	321
Millington comm schools	408.77	510	1,247.94	460	13,056	424	2,481	213
Reese public schools	1,199.61	96	1,303.18	393	11,673	512	1,270	378
Sebewaing Unionville school	1,423.35	54	1,632.39	94	14,036	315	1,198	386
Vassar public schools	497.53	467	1,083.56	526	14,048	313	2,356	225
Van Buren								
South Haven pub schools	538.47	434	1,187.28	506	14,079	312	3,499	147
Bangor public schools	351.03	527	1,277.55	421	13,336	394	1,802	297
Covert public schools	1,860.14	13	2,033.95	15	12,252	487	745	463
Decatur public schools	444.40	499	1,234.04	479	13,529	377	1,384	353
Bloomingdale pub sch dist	476.65	479	1,357.16	327	12,855	441	1,376	354
Gobles pub school dist	436.94	502	1,113.99	525	12,702	456	1,139	398

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Van Buren (cont.)								
Hartford pub school dist	$ 452.25	495	$ 1,271.89	431	$ 13,617	369	1,542	337
Lawrence pub school dist	522.97	451	1,172.83	509	12,868	438	831	446
Lawton comm sch dist	747.29	265	1,356.58	329	11,192	519	935	423
Mattawan cons sch dist	453.78	494	1,073.89	527	13,798	345	2,069	261
Paw Paw public sch dist	600.45	371	1,412.52	242	14,514	263	2,445	217
Washtenaw								
Ann Arbor City sch dist	1,851.84	15	1,970.08	24	17,333	72	17,958	12
Ypsilanti City sch dist	1,056.33	131	1,813.34	42	17,259	78	7,058	55
Chelsea school dist	1,229.69	89	1,449.54	205	14,925	221	2,663	203
Dexter comm sch dist	1,356.55	63	1,468.04	190	16,080	137	2,134	251
Lincoln cons sch dist	1,091.32	121	1,483.82	180	15,367	179	2,987	179
Manchester pub sch dist	1,075.55	127	1,343.18	345	13,169	413	1,359	360
Milan Area schools	724.63	283	1,298.15	398	15,592	167	2,873	185
Saline Area sch dist	1,088.42	122	1,412.02	243	15,120	202	3,385	158
Whitmore Lake pub sch dist	919.75	175	1,442.74	210	13,175	411	1,148	396
Willow Run pub schools	890.25	190	1,670.45	80	14,254	291	4,248	112
Wayne								
Detroit City sch dist	591.00	382	1,751.04	57	17,832	60	233,049	1
Allen Park pub schools	1,331.76	67	1,622.80	98	20,892	5	3,981	125
Cherry Hill school dist	582.24	396	1,590.80	110	18,968	29	3,429	156
Dearborn City sch dist	2,061.83	4	2,435.72	3	22,461	1	16,334	14
Dearborn Hgt sch dist	523.27	450	1,496.93	172	20,160	10	4,030	122
Melvindale N Allen Pk S D	1,552.20	33	1,678.35	77	18,081	49	4,046	121
Garden City sch dist	606.10	369	1,634.18	93	20,328	7	8,996	36
Grosse Pte pub schools	2,088.26	3	2,004.34	20	21,292	3	10,199	31
Hamtramck City schools	1,023.31	140	1,705.28	71	17,084	84	2,206	239
Highland Pk City schools	706.53	290	1,982.37	21	18,664	36	7,716	47
Inkster City sch dist	360.44	525	1,604.64	106	14,944	214	3,964	126

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Wayne (cont.)								
Lincoln Pk City schools	$ 904.40	179	$ 1,399.70	260	$ 15,819	153	7,957	43
Livonia public schools	1,311.96	74	1,756.18	54	19,448	18	29,075	6
Plymouth comm sch dist	1,183.88	100	1,636.26	90	17,211	80	15,256	17
Redford Union sch dist	890.26	189	1,805.52	43	18,696	34	6,679	59
River Rouge City schools	1,940.39	10	2,103.26	9	21,515	2	3,341	161
Romulus comm schools	1,225.49	90	1,748.30	58	19,316	21	6,166	65
South Redford sch dist	2,019.84	6	2,319.70	5	21,073	4	4,436	103
Taylor school dist	816.72	227	1,669.03	81	17,754	62	20,240	10
Trenton public schools	1,805.20	16	1,845.50	37	20,507	6	5,760	73
Wayne Westland comm schools	780.61	245	1,845.23	39	19,341	20	22,799	8
Wyandotte City sch dist	1,376.75	61	1,534.27	142	17,281	75	6,259	63
Flat Rock comm schools	1,907.77	12	2,016.20	17	18,981	28	1,607	326
North Dearborn Hgts S D	1,550.21	34	1,775.65	47	20,156	11	1,644	322
Crestwood school dist	1,018.56	141	1,571.55	125	18,033	52	3,667	137
Westwood comm schools	1,043.17	132	1,747.86	59	18,213	44	3,636	139
Ecorse public sch dist	1,961.28	9	2,055.07	13	19,257	23	2,799	189
Gibraltar school dist	938.52	167	1,417.97	238	16,364	124	4,299	110
Grosse Ile twp school	1,440.94	46	1,794.50	46	19,090	25	2,446	216
Harper Woods City sch dist	1,799.30	17	1,763.81	50	12,591	465	1,233	382
Huron school dist	376.21	523	1,351.31	333	20,256	9	4,003	123
Woodhaven school dist	1,319.51	71	1,863.61	34	18,513	38	4,406	105
Northville pub schools	1,113.24	115	2,551.06	2	18,417	40	4,941	93
Riverview comm sch dist	2,002.47	8	1,930.01	30	19,937	15	3,355	160
Southgate comm sch dist	1,016.73	143	1,668.85	82	18,210	46	6,938	57
Van Buren pub schools	893.72	183	1,507.22	164	18,682	35	7,909	44
Wexford								
Cadillac Area pub school	693.67	298	1,314.14	292	13,889	336	3,926	129

TABLE IV-28. RANKING OF MICHIGAN COUNTIES ACCORDING TO PUBLIC AND PRIVATE SCHOOL MEMBERSHIP AS A PERCENTAGE OF TOTAL POPULATION: 1977-1978

County	Percentage 1976-77	Percentage 1977-78	County	Percentage 1976-77	Percentage 1977-78
Osceola	32.3	31.3	Ingham	23.1	22.7
Montcalm	31.1	30.3	Calhoun	23.2	22.6
Tuscola	30.1	29.3	Kent	23.3	22.6
Van Buren	29.4	28.6	Oakland	23.5	22.5
Iosco	28.8	27.8	Presque Isle	23.5	22.5
Shiawassee	28.1	27.5	Gladwin	22.7	22.4
Otsego	28.1	27.2	Huron	23.3	22.4
Gratiot	28.0	27.0	Mason	23.8	22.4
Ionia	27.2	26.7	Clinton	22.8	22.1
Arenac	27.2	26.3	Hillsdale	22.6	22.1
Newaygo	27.2	26.3	Cheboygan	23.1	22.0
Baraga	27.1	26.0	Dickinson	22.9	22.0
Benzie	27.6	26.0	Oscoda	22.9	22.0
St. Joseph	26.6	25.9	Roscommon	23.0	21.6
Sanilac	26.4	25.8	Jackson	22.1	21.4
Genesee	26.7	25.7	Missaukee	22.0	21.4
Ontonagon	26.0	25.7	Ottawa	21.8	21.2
Alpena	26.6	25.2	Bay	22.0	21.1
Delta	25.9	25.1	Manistee	21.2	21.1
Midland	26.2	24.9	Oceana	22.1	21.1
Antrim	25.7	24.8	Marquette	21.5	20.8
Charleboix	26.4	24.8	Barry	20.8	20.3
Lenawee	25.2	24.8	Menominee	21.7	20.3
Wexford	25.3	24.8	Schoolcraft	20.8	20.3
Luce	25.1	24.6	Cass	20.4	20.1
Lapeer	24.7	24.5	Wayne	20.3	19.9
Macomb	25.7	24.4	Branch	19.7	19.7
Berrien	25.2	24.2	Chippewa	24.0	19.6
Clare	24.9	24.2	Gogebic	20.5	19.6
St. Clair	24.5	24.2	Kalamazoo	20.1	19.2
Allegan	25.2	24.1	Iron	19.5	18.6
Eaton	24.7	24.0	Mecosta	19.2	18.6
Livingston	24.9	24.0	Montmorency	19.1	18.4
Muskegon	24.9	23.8	Houghton	19.0	18.3
Alger	25.4	23.7	Washtenaw	18.6	18.3
Crawford	25.2	23.6	Ogemaw	17.3	18.1
Grand Traverse	24.3	23.6	Leelanau	17.5	16.9
Monroe	24.4	23.6	Alcona	16.4	14.8
Saginaw	24.4	23.6	Isabella	14.9	14.6
Kalkaska	22.4	23.4	Lake	14.5	13.8
Emmet	24.5	23.3	Keweenaw	.8	1.1
Mackinac	23.4	23.0	Michigan	25.1	24.3

SOURCE: Adapted from Michigan Department of Education and Michigan Department of Management and Budget, special release.

TABLE IV-30. CHILDREN AND SCHOOLS PARTICIPATING IN SCHOOL LUNCH PROGRAM IN MICHIGAN: FISCAL YEARS 1960-1977

Year	Number of schools participating [a,b]	Children participating[b]	
		Number (000)	Percentage of total enrollment[c]
1960	1,858	347	18.3
1961	1,941	375	19.1
1962	2,050	410	20.4
1963	2,137	445	21.3
1964	2,187	470	21.5
1965	2,228	513	22.7
1966	2,330	556	23.7
1967	2,458	586	24.6
1968	2,440	560	23.3
1969	2,506	588	23.9
1970	2,545	653	26.4
1971	2,757	692	28.4
1972	2,943	675	27.4
1973	2,840	708	28.7
1974	2,976	756	46.3
1975	3,028	761	46.6
1976	2,768	775	46.2
1977	3,256	830	48.7

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1961 through 1978 (Washington, D.C.: annually), Table 205 (1978).

a. Public and private elementary and secondary schools; private schools, estimated.

b. Data are for November of the fiscal years prior to 1964 and for December of the fiscal years 1964-1968.

c. Based upon total enrollment in public schools in the fall of the fiscal year and total enrollment in private schools in the previous school year.

TABLE IV-31. EARNED DEGREES CONFERRED BY HIGHER EDUCATIONAL INSTITUTIONS IN MICHIGAN, BY SEX AND LEVEL OF DEGREE: 1957-1976

Year	Bachelor's and first professional		Master's and second professional		Doctor's degrees (Ph.D., Ed.D. etc.)	
	Men	Women	Men	Women	Men	Women
			Publicly controlled			
1967-68	13,071	9,757	6,661	3,606	1,024	133
1968-69	14,883	11,809	6,912	4,180	1,173	178
1969-70	16,789	13,001	6,642	4,556	1,387	183
1970-71	17,855	13,391	7,219	5,089	1,539	238
1971-72	18,262	14,181	7,446	5,194	1,433	261
1972-73	19,238	15,089	7,276	5,218	1,429	306
1973-74	18,764	14,332	7,262	5,592	1,243	328
1974-75	17,721	14,015	7,850	5,920	1,295	311
1975-76	17,762	13,838	8,209	6,636	1,105	373
			Privately controlled			
1967-68	3,735	2,329	498	318	6	0
1968-69	4,099	2,472	442	358	4	0
1969-70	4,312	2,601	485	360	7	0
1970-71	4,432	2,595	590	363	14	2
1971-72	4,481	2,578	601	408	16	0
1972-73	4,402	2,466	620	389	21	2
1973-74	4,727	2,589	591	372	10	1
1974-75	4,540	2,622	660	457	26	3
1975-76	4,982	2,799	666	494	15	5
			Total			
1957-58	10,184	5,487	2,953	1,281	389	50
1958-59	10,692	5,797	3,058	1,314	445	53
1959-60	11,149	6,559	3,201	1,364	457	55
1960-61	11,294	6,497	3,195	1,550	552	48
1961-62	11,442	7,116	3,649	1,663	576	67
1962-63	11,854	8,057	3,801	1,758	619	72
1963-64	12,829	9,152	4,003	2,112	707	89
1964-65	13,466	9,638	4,325	2,333	755	88
1965-66	14,003	9,868	5,597	3,010	818	101
1966-67	15,562	10,639	6,318	3,325	921	122
1967-68	16,806	12,086	7,109	3,924	1,030	133
1968-69	18,982	14,281	7,354	4,538	1,177	178
1969-70	21,101	15,602	7,127	4,916	1,394	183
1970-71	22,287	15,986	7,809	5,452	1,553	240
1971-72	22,743	16,759	8,047	5,602	1,449	261
1972-73	23,640	17,545	7,896	5,607	1,450	308
1973-74	23,491	16,921	7,853	5,964	1,253	329
1974-75	22,251	16,637	8,510	6,377	1,321	314
1975-76	22,743	16,637	8,037	6,042	1,538	480

SOURCE: National Center for Education Statistics, Earned Degrees Conferred, 1975-76, Summary Data (Washington, D.C.: 1977), Tables 3, 3A, and 3B, and similar documents for earlier years; and Office of Education, Earned Degrees Conferred by Higher Educational Institutions, 1951-1952 through 1957-1958 (Washington, D.C.: annually), Circulars no. 360a, 380a, 418, 461, 499, 527, and 570, respectively.

TABLE IV-32. OPENING FALL ENROLLMENTS BY TYPE OF MICHIGAN HIGHER EDUCATION INSTITUTIONS (HEADCOUNT): 1960-1978, AND FISCAL-YEAR EQUATED 1974-1978

Year	Public 4-year institutions	Public 2-year institutions	Private institutions	Total
		Headcount		
1960	107,658	27,220	36,398	171,285
1961	112,082	31,619	38,278	181,979
1962	119,834	34,356	39,700	193,890
1963	129,113	38,001	40,611	207,725
1964	143,114	46,123	43,472	232,709
1965	162,312	58,216	47,896	268,424
1966	176,487	69,496	49,462	295,445
1967	187,708	79,698	50,461	317,867
1968	198,419	95,965	50,777	345,161
1969	208,323	115,299	50,759	374,381
1970	217,802	125,553	52,348	395,703
1971	220,165	132,059	51,335	403,559
1972	218,667	137,634	50,658	406,959
1973	221,893	152,715	51,160	425,768
1974	229,627	173,643	55,273	458,543
1975	241,769	197,199	61,081	500,049
1976	236,831	187,622	60,372	484,825
1977	236,618	186,876	60,497	483,991
1978	236,035	187,649	62,810	486,494
		Fiscal-year equated		
1974	200,556	89,861	48,205	338,622
1975	207,611	109,484	53,151	370,246
1976	213,916	111,646	51,354	376,619
1977	207,284	109,043	51,014	367,341
1978	203,895	107,223	50,647	361,765

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1976-77 (Lansing: 1977), Table 21 (1976); and special release.

TABLE IV-27. RANKING OF MICHIGAN PUBLIC K-12 DISTRICTS BY SELECTED FINANCIAL AND ENROLLMENT STATISTICS: 1977-1978 (cont.)

County	General fund revenues local sources		Current operating expenditures		Average teachers salary		Pupils	
	Per pupil	Rank[a]	Per pupil	Rank[a]	Amount	Rank[a]	Number	Rank
Wexford (cont.)								
Manton cons school dist	$ 586.59	389	$ 1,187.56	505	$ 12,503	471	836	444
Mesick cons school dist	802.37	233	1,196.09	500	13,653	365	775	457

SOURCE: Michigan Department of Education, Ranking of Michigan Public High School Districts by Selected Financial Data, 1977-1978, Bulletin 1012 (Lansing: 1979), pp. 6-37.

a. Of Michigan's 581 public school districts in 1977-1978, 530 were kindergarten through twelfth grade.

TABLE IV-29. GENERAL FUND REVENUE SOURCES AND CURRENT OPERATING EXPENDITURES FOR PUBLIC SCHOOLS IN MICHIGAN: 1967-1968 THROUGH 1977-1978

School year	Revenues					Total current operating expenditures ($000)	Per pupil current operating expenditures
	Local ($000)	State ($000)	Federal ($000)	Other[a] ($000)	Total[b] ($000)		
1967-68	681,337	554,838	58,852	4,301	1,299,328	1,239,753	$ 596.11
1968-69	818,859	610,972	66,806	4,634	1,501,272	1,391,736	655.58
1969-70	938,595	684,628	63,715	5,005	1,691,943	1,573,119	726.82
1970-71	1,037,042	754,799	81,034	5,534	1,878,408	1,790,120	821.63
1971-72	1,148,771	798,505	102,418	4,824	2,054,519	1,935,035	874.59
1972-73	1,212,837	859,463	112,945	5,096	2,190,342	2,085,335	950.79
1973-74	1,378,727	945,116	116,182	4,977	2,445,002	2,271,936	1,051.86
1974-75	1,544,679	991,396	145,713	5,714	2,687,502	2,548,409	1,191.01
1975-76	1,715,734	1,028,155	161,897	4,644	2,910,430	2,772,531	1,302.94
1976-77	1,614,153	1,193,332	149,280	6,715	2,963,479	2,934,395	1,409.46
1977-78	1,804,754	1,290,231	192,513	5,547	3,293,046	3,286,377	1,623.75

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1964 through 1978, Bulletin 1011 (Lansing: annually), pp. 14-15 (1978).

NOTE: General fund is the fund used to record the operations of the school district pertaining to education, except those specifically described under Building and Site and Debt Retirement funds. Current operating expenditures are the basic expenses of a school district including expenditures for instruction, administration, attendance, health, transportation, fixed charges, operation of plant, and maintenance of plant. The current operating expenditures exclude capital outlay, community services, student services, and outgoing transfers.

a. Intermediate sources, gifts, and bequests.

b. Excludes incoming transfers.

TABLE IV-33. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1974-1978

Institution and city	1974	1975	1976	1977	1978
Public baccalaureate institutions					
Central Michigan University,	16,744	17,565	18,041	17,973	17,802
Eastern Michigan University, Ypsilanti	20,033	20,258	18,175	19,104	18,655
Ferris State College, Big Rapids	9,264	9,460	9,934	9,965	10,208
Grand Valley State College, Allendale	6,677	7,340	7,376	7,469	7,065
Lake Superior State College, Sault Ste. Marie	2,064	2,371	2,457	2,261	2,401
Michigan State University, East Lansing	46,794	48,488	47,796	47,383	46,567
Michigan Technological University, Houghton	5,366	5,958	6,387	6,807	7,130
Northern Michigan University, Marquette	8,188	9,407	9,268	8,844	8,995
Oakland University, Rochester	10,216	10,565	10,457	11,051	11,220
Saginaw Valley College, University Center	2,531	3,209	3,322	3,530	3,706
University of Michigan, Ann Arbor	36,895	37,505	36,863	35,954	36,577
University of Michigan, Dearborn	4,298	4,858	5,194	5,480	5,955
University of Michigan, Flint	3,179	3,474	3,685	3,801	3,884
Wayne State University, Detroit	34,706	38,073	34,818	34,500	33,423
Western Michigan University, Kalamazoo	22,672	23,238	23,058	22,496	22,447
TOTAL	229,672	241,769	236,831	236,618	236,035
Public community and junior colleges[a]					
Alpena Community College, Alpena	1,475	1,787	1,747	1,765	1,752
Bay de Noc Community College, Escanaba	934	1,161	1,083	1,163	1,192
C.S. Mott Community College, Flint	22,028	23,922	19,719	13,417	9,045
Delta College, University Center	7,480	8,460	7,986	8,802	9,148
Glen Oaks Community College, Centerville	1,154	1,228	955	721	1,031
Gogebic Community College, Ironwood	902	1,232	1,295	1,066	1,004

TABLE IV-33. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1974-1978 (cont.)

Institution and city	1974	1975	1976	1977	1978
Public community and junior colleges (cont.)					
Grand Rapids Junior College, Grand Rapids	5,916	7,120	7,227	8,121	7,516
Henry Ford Community College, Dearborn	14,151	14,700	15,023	16,953	17,191
Highland Park Community College, Highland Park	3,415	3,440	3,221	2,758	2,233
Jackson Community College, Jackson	7,320	8,202	7,030	5,507	6,506
Kalamazoo Valley Community College, Kalamazoo	4,935	5,807	5,922	5,742	6,490
Kellogg Community College, Battle Creek	4,746	5,706	4,285	4,591	4,304
Kirtland Community College, Roscommon	908	1,189	1,183	1,058	1,118
Lake Michigan College, Benton Harbor	3,470	3,339	3,197	3,345	3,250
Lansing Community College, Lansing	12,890	15,436	17,102	18,345	18,313
Macomb County Community College, Warren	21,512	24,713	23,593	24,356	25,032
Mid-Michigan Community College, Gladwin	1,020	1,231	1,424	1,303	1,632
Monroe County Community College, Monroe	1,704	2,116	2,028	2,200	2,020
Montcalm Community College, Sidney	918	1,111	1,200	1,199	1,333
Muskegon Community College, Muskegon	4,938	5,590	4,668	4,555	5,011
North Central Michigan College, Petoskey	1,165	1,503	1,487	1,502	1,519
Northwestern Michigan College, Traverse City	2,259	2,575	2,605	2,628	2,731
Oakland Community College, Bloomfield Hills	16,264	18,552	18,400	18,825	19,995
St. Clair County Community College, Port Huron	4,181	4,494	3,147	3,258	3,165
Schoolcraft College, Livonia	6,992	8,056	7,837	8,239	9,410
Southwestern Michigan College, Dowagiac	1,153	1,525	1,567	1,737	1,844
Washtenaw Community College, Ann Arbor	5,216	6,600	6,618	7,172	7,465
Wayne County Community College, Detroit	13,836	15,453	15,145	15,636	15,610
West Shore Community College, Scottville	761	951	928	912	789
TOTAL	173,643	197,199	187,622	186,876	187,649

TABLE IV-33. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1974-1978 (cont.)

Institution and city	1974	1975	1976	1977	1978
	Private institutions				
Adrian College, Adrian	1,032	1,044	1,044	912	824
Albion College, Albion	1,769	1,771	1,698	1,705	1,784
Alma College, Alma	1,154	1,139	1,113	1,170	1,183
Andrews University, Berrien Springs	2,364	2,655	2,825	2,837	2,924
Aquinas College, Grand Rapids	1,635	1,706	1,703	1,684	1,918
Baker Jr. College of Business, Flint	--	1,424	1,241	1,050	1,312
Calvin College, Grand Rapids	3,414	3,674	3,915	4,075	3,977
Calvin Theological Seminary, Grand Rapids	168	210	220	220	210
Center for Creative Studies	725	915	843	983	1,009
Cleary College, Ypsilanti	454	633	432	461	459
Concordia Lutheran Junior College, Ann Arbor	450	456	552	615	556
Cooley Law School, Lansing	425	667	824	998	1,046
Cranbrook Academy of Art, Bloomfield Hills	156	150	149	155	145
Davenport College of Business, Grand Rapids	1,303	1,843	2,081	2,174	2,243
Detroit Bible College, Detroit	286	292	262	335	301
Detroit College of Business, Dearborn	2,468	3,365	2,555	2,065	1,887
Detroit College of Law, Detroit	914	918	1,002	957	845
Detroit Institute of Technology, Detroit	1,340	1,539	1,436	1,412	810
Duns Scotus College, Southfield	57	50	66	56	59
Faithway Baptist College, Memphis	50	97	136	117	114
General Motors Institute, Flint	3,039	2,447	2,334	2,354	2,248
Grace Bible College, Grand Rapids	181	174	166	159	215
Grand Rapids School of Bible, Grand Rapids	--	635	634	579	570
Great Lakes Bible College, Lansing	178	222	238	200	232
Grand Rapids Baptist, Grand Rapids	857	972	853	1,048	1,137
Hillsdale College, Hillsdale	965	1,070	1,010	1,048	989

TABLE IV-33. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1974-1978 (cont.)

Institution and city	1974	1975	1976	1977	1978
	Private institutions (cont.)				
Hope College,	2,198	2,275	2,290	2,330	2,371
John Wesley College at Owosso, Owosso	525	593	457	284	221
Jordon College, Cedar Springs	--	50	137	179	281
Kalamazoo College, Kalamazoo	1,400	1,496	1,501	1,534	1,444
Lawrence Institute of Technology, Southfield	4,206	4,413	4,584	4,714	4,861
Lewis College of Business	--	--	--	164	560
Madonna College, Livonia	1,379	1,782	2,091	2,521	3,011
Marygrove College, Detroit	1,049	871	816	811	871
Mercy College of Detroit, Detroit	1,926	2,140	2,208	2,226	2,272
Merrill-Palmer Institute, Detroit	69	107	86	88	115
Michigan Christian Junior College, Rochester	181	343	347	400	312
Muskegon Business College, Muskegon	478	869	752	1,002	1,017
Nazareth College, Nazareth	520	457	451	538	620
Northwood Institute, Midland	1,422	1,262	1,360	1,510	1,653
Olivet College, Olivet	805	869	779	708	671
Reformed Bible College, Grand Rapids	217	198	196	213	235
Sacred Heart Seminary, Detroit	132	132	162	164	119
Saint John's Seminary	--	--	--	98	110
St. Mary's College, Orchard Lake	99	106	192	213	196
Shaw College at Detroit, Detroit	1,233	1,352	1,242	1,039	805
Siena Heights College, Adrian	1,166	1,124	1,060	1,070	1,131
Spring Arbor College, Spring Arbor	816	890	890	825	845
Suomi College, Hancock	397	438	401	403	537
University of Detroit, Detroit	8,781	8,054	7,910	8,094	7,848
Walsh College of Accountancy and Business Administration, Troy	748	1,047	999	1,287	1,393

TABLE IV-33. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1974-1978 (cont.)

Institution and city	1974	1975	1976	1977	1978
		Private institutions (cont.)			
Western Theological Seminary, Holland	142	145	129	122	141
TOTAL	55,273	61,081	60,372	60,497	62,810

SOURCE: Michigan Department of Education, special release.

NOTE: Enrollment statistics are based on actual headcounts of students enrolled in degree programs, unclassified students, and graduate students.

a. Community service enrollments (in fishing, knitting, dancing, and other "leisure time" classes) not included in Fall 1977 headcounts.

TABLE IV-34. FISCAL YEAR EQUATED STUDENTS, EXPENDITURES, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1978

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Faculty[d] Male	Faculty[d] Female
Public baccalaureate institutions					
Central Michigan University	15,883	23,371	475,223	500	115[e]
Eastern Michigan University	14,506	21,771	432,806	424[e]	150[e]
Ferris State College	10,377	15,672	180,167	382	67
Grand Valley State College	5,849	8,632	173,639	184	46
Lake Superior State College	1,997	2,715	84,268	86	19
Michigan State University	40,730	100,402	1,773,033	1,669	279
Michigan Technological University	7,297	11,010	398,453	292	40
Northern Michigan University	8,043	10,987	316,174	262[e]	92[e]
Oakland University	9,825	12,649	365,267	260	72
Saginaw Valley State College	2,420	3,195	80,685	79	22
University of Michigan-Ann Arbor	35,613	119,239	4,621,745	1,443	296
University of Michigan-Dearborn	4,242	5,401	203,345	142	46
University of Michigan-Flint	2,716	4,145	84,901	92	31
Wayne State University	26,215	91,769	1,704,848	811	306
Western Michigan University	19,182	30,391	685,777	667	165
TOTAL	203,895	461,359	11,580,291	7,293	1,746
Public community and junior colleges					
Alpena	1,313	1,771	27,119	48	9
Bay de Noc	903	1,291	22,598	30	9
C. S. Mott	4,577	7,835	88,427	141	72
Delta	5,843	9,065	80,815	129	68
Glen Oaks	647	670	24,466	18	9
Gogebic	975	1,198	21,902	40	8
Grand Rapids Jr.	5,469	7,308	46,421	140	86
Henry Ford	8,047	10,602	72,514	152	59

TABLE IV-34. FISCAL YEAR EQUATED STUDENTS, EXPENDITURES, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1978 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Faculty[d] Male	Faculty[d] Female
		Public community and junior colleges (cont.)			
Highland Park	1,996	2,064	30,450	45	24
Jackson	3,970	4,716	33,734	72	30
Kalamazoo Valley	2,936	3,447	54,770	62	25
Kellogg	2,660	3,107	38,055	60	29
Kirtland	989	805	26,180	14	7
Lake Michigan	1,642	1,349	67,505	34	19
Lansing	9,049	11,474	67,634	119	52
Macomb	12,288	12,659	81,678	235	108
Mid Michigan	1,016	1,167	18,854	22	14
Monroe	1,292	1,496	43,826	39[e]	52[e]
Montcalm	816	957	19,097	20	7
Muskegon	2,634	3,584	48,281	83	38
North Central Michigan	883	940	n.a.	24	9
Northwestern	1,920	2,761	40,587	73	20
Oakland	10,495	11,164	140,616	170	78
St. Clair	2,389	3,771	41,028	66	29
Schoolcraft	4,671	5,275	64,860	103	38
Southwestern	1,332	1,445	23,489	27	12
Washtenaw	3,628	n.a.	45,717	95	26
Wayne	12,134	10,983	20,992	85	100
West Shore	704	943	10,499	24	6
TOTAL	107,223	123,859	1,359,063	2,170	1,043
		Independent colleges and universities			
Adrian College	743	1,485	113,227	45	10
Albion College	1,765	2,645	207,354	85	22
Alma College	1,168	1,892	135,228	55	10

TABLE IV-34. FISCAL YEAR EQUATED STUDENTS, EXPENDITURE, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1978 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Faculty[d] Male	Faculty[d] Female
Independent colleges and universities (cont.)					
Andrews University	2,584	4,936	339,113	n.a.	n.a.
Aquinas College	1,301	1,893	99,785	42	8
Baker Jr. College of Business	1,101	375	3,340	4	12
Calvin College	3,787	6,225	288,999	174	26
Calvin Seminary	170	389	n.a.	15	0
Center for Creative Studies	641	961	9,275	31	8
Cleary College	258	190	10,111	n.a.	n.a.
Concordia College	483	739	97,658	27	7
Cooley Law School	1,046	801	45,554	17	2
Cranbrook Academy of Art	145	304	19,451	8	0
Davenport College of Business	1,625	1,456	11,482	18	14
Detroit Bible College	172	212	36,143	8	2
Detroit College of Business	1,436	n.a.	15,643	11	8
Detroit College of Law	551	827	45,020	23	1
Detroit Institute of Technology	628	n.a.	n.a.	29[e]	13[e]
Duns Scotus College	43	141	49,780	n.a.	n.a.
Faithway Baptist College	64	n.a.	13,075	12[e]	[illegible][e]
General Motors Institute	2,354	n.a.	41,160	n.a.	n.a.
Grace Bible College	185	153	24,028	8	2
Grand Rapids School of Bible	503	359	n.a.	9	2
Grand Rapids Baptist College	960	959	58,274	40	9
Great Lakes Bible College	204	174	15,483	10	1
Hillsdale College	970	1,352	76,181	46	10
Hope College	2,195	3,377	174,454	118	19
John Wesley College	205	390	35,485	14	3
Jordan College	151	168	10,767	n.a.	n.a.
Kalamazoo College	1,444	3,507	212,390	72	14
Lawrence Institute of Technology	3,446	2,389	43,790	45	6

TABLE IV-34. FISCAL YEAR EQUATED STUDENTS, EXPENDITURES, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1978 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Faculty[d] Male	Faculty[d] Female
Independent colleges and universities (cont.)					
Lewis College of Business	518	114	n.a.	n.a.	n.a.
Madonna College	1,757	1,348	60,277	20	48
Marygrove College	671	n.a.	167,557	12[e]	32[e]
Mercy College of Detroit	1,689	2,231	111,203	36	42
Merrill-Palmer Institute	91	404	34,350	4	6
Michigan Christian Jr. College	291	266	21,583	7	4
Muskegon Business College	899	368	5,037	10	7
Nazareth College	436	698	72,518	9	22
Northwood Institute	1,644	864	30,043	33	10
Olivet College	651	1,021	75,901	37	5
Reformed Bible College	206	208	31,345	n.a.	n.a.
Sacred Heart College	83	n.a.[f]	n.a.	9[e]	6[e]
Sacred Heart Seminary	72	230[f]	48,500	10	0
St. John's Seminary	87	127	42,000	n.a.	n.a.
Saint Mary's College	139	245	6,288	n.a.	n.a.
Shaw College at Detroit	734	912	87,900	30	23
Sienna Heights College	807	1,090	70,264	24	13
Spring Arbor College	776	1,057	58,762	31	8
Suomi College	522	487	22,293	12	6
University of Detroit	5,486	12,066	498,521	222	48
Walsh College	602	343	11,033	3	1
Western Theological Seminary	115	292	69,675	11	1
Yeshivath Beth Yehudah	43	n.a.	n.a.	n.a.	n.a.
TOTAL	50,647	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Education, special release.

a. Total number of semester hours accredited to students during the year, divided by 31.

b. Instructional expenditures only; excludes hospitals, dormitories and other auxillary enterprises, research, public service, academic support, student services, institutional support, and maintenance.

c. Number of volumes in libraries in 1977.

d. Academic year (9-10 months) plus year-round appointments.

e. 1977 data.

f. Includes Sacred Heart College.

n.a.: not available.

TABLE IV-35. PROVISIONAL AND PERMANENT TEACHING CERTIFICATES ISSUED ON THE RECOMMENDATION OF TEACHER EDUCATION INSTITUTIONS IN MICHIGAN, BY INSTITUTION: 1970-1971 THROUGH 1976-1977

Institutions	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977
Adrian College	213	221	179	168	125	92	57
Albion College	152	155	140	166	126	122	76
Alma College	296	216	153	183	136	103	65
Andrews University	182	164	143	155	136	146	139
Aquinas College	218	179	149	134	177	115	108
Calvin College	542	556	425	395	417	397	249
Central Michigan University	2,979	3,155	3,046	2,835	2,369	2,665	2,325
Eastern Michigan University	2,697	2,719	3,360	2,826	2,596	2,666	2,909
Ferris State College	131	246	268	196	123	146	96
Grand Valley State College	298	368	378	455	377	396	360
Hillsdale College	109	117	110	101	97	63	62
Hope College	211	127	351	178	206	179	134
Kalamazoo College	18	77	70	51	60	52	75
Lake Superior State College	--	--	--	21	16	14	25
Madonna College	83	68	85	56	45	64	51
Marygrove College	239	262	312	250	178	184	144
Mercy College	122	146	123	75	74	62	39
Michigan State University	3,791	4,027	3,490	3,469	2,782	3,065	2,704
Michigan Technological University	14	19	19	20	19	16	27
Nazareth College	138	109	74	69	65	36	40
Northern Michigan University	1,093	1,165	1,104	1,067	803	739	620
Oakland University	660	529	576	710	623	824	981
Olivet College	143	118	119	122	118	124	82
Saginaw Valley College	--	108	144	189	192	212	163
Siena Hgts College	205	142	152	106	100	94	98
Spring Arbor College	137	157	144	130	103	65	81
University of Detroit	475	414	314	313	283	216	205
University of Michigan	2,078	2,061	2,003	1,770	1,706	1,578	1,361
Wayne State Univ	2,543	2,791	2,645	2,337	2,072	1,914	1,836
Western Michigan University	3,700	3,951	3,434	3,220	2,836	2,330	2,435
State of Michigan TOTAL	23,467	24,366	23,510	21,779	18,960	18,679	17,547
Out-of-State TOTAL	6,273	6,256	5,569	5,225	4,167	3,416	2,559

SOURCE: Michigan Department of Education, Michigan Education Statistics, 1977-78 (Lansing: 1978), Table 27 (1977).

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public four-year institutions				
Central Michigan University[a]				
Professors	177	$25,821	18	$25,240
Associate professors	135	20,493	27	20,388
Assistant professors	155	17,322	50	16,755
Instructors	27	14,391	20	13,200
Total	494	--	115	--
Eastern Michigan University[b]				
Ferris State College[a]				
Professors	46	23,282	6	23,746
Associate professors	108	19,650	11	19,272
Assistant professors	149	17,368	30	16,136
Instructors	55	15,716	18	14,217
Total	358	--	65	--
Ferris State College[c]				
Professors	2	--	--	--
Associate professors	9	26,047	--	--
Assistant professors	6	21,905	1	--
Instructors	7	18,230	1	--
Total	24	--	2	--
Grand Valley State Colleges[a]				
Professors	39	25,030	1	--
Associate professors	98	19,948	16	19,138
Assistant professors	27	17,266	21	16,032
Instructors	1	--	1	--
Undesignated	19	18,195	7	18,779
Total	184	--	46	--
Lake Superior State College[a]				
Professors	10	21,329	--	--
Associate professors	29	18,728	3	17,994
Assistant professors	25	16,033	9	14,317
Instructors	11	12,999	6	13,081
Lecturers	1	--	--	--
Total	76	--	18	--
Lake Superior State College[c]				
Professors	3	25,500	1	--
Associate professors	2	--	--	--
Assistant professors	5	19,743	--	--
Total	10	--	1	--
Michigan State University[a]				
Professors	470	28,125	49	24,743
Associate professors	264	20,937	42	19,825
Assistant professors	171	17,855	89	16,551
Instructors	16	15,395	8	14,776
Total	921	--	188	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public four-year institutions (cont.)				
Michigan State University[c]				
Professors	424	$ 34,624	13	$ 35,078
Associate professors	199	28,622	35	26,254
Assistant professors	122	23,881	37	23,049
Instructors	3	21,117	6	17,375
Total	748	--	91	—
Michigan Technological Univ.[a]				
Professors	69	26,762	1	--
Associate professors	88	21,326	7	19,914
Assistant professors	87	16,678	14	16,007
Instructors	26	14,735	16	13,288
Lecturers	3	18,000	--	--
Total	273	—	38	—
Michigan Technological Univ.[c]				
Professors	13	36,200	--	--
Associate professors	4	25,475	1	--
Assistant professors	2	23,950	1	—
Total	19	—	2	--
Northern Michigan University[b]				
Oakland University[a]				
Professors	79	28,618	3	26,598
Associate professors	86	21,181	16	21,009
Assistant professors	80	17,040	29	16,389
Instructors	15	15,321	24	14,604
Total	260	—	72	--
Saginaw Valley State College[a]				
Professors	18	23,359	1	--
Associate professors	31	19,655	6	19,323
Assistant professors	27	15,482	11	15,662
Instructors	3	16,132	4	15,875
Total	79	—	22	--
University of Michigan Ann Arbor[a]				
Professors	741	31,202	44	27,198
Associate professors	261	22,394	56	21,475
Assistant professors	189	17,893	94	17,042
Instructors	5	15,068	19	13,335
Lecturers	30	16,901	28	14,188
Total	1,226	--	241	--
University of Michigan Ann Arbor[c]				
Professors	134	42,941	13	34,421
Associate professors	31	31,412	14	27,011
Assistant professors	31	26,477	21	21,442
Instructors	9	17,167	4	16,625
Lecturers	12	23,417	3	19,734
Total	217	--	55	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public four-year institutions (cont.)				
University of Michigan Dearborn[a]				
Professors	39	$ 26,398	4	$23,918
Associate professors	42	20,282	8	19,271
Assistant professors	43	16,759	17	16,272
Instructors	1	--	1	--
Lecturers	15	13,250	16	12,984
Total	140	--	46	--
University of Michigan-Dearborn[c]				
Lecturers	2	--	—	--
University of Michigan-Flint[a]				
Professors	26	24,963	1	--
Associate professors	33	20,120	8	19,778
Assistant professors	22	17,250	17	16,885
Instructors	5	16,774	1	--
Lecturers	4	14,958	3	12,895
Total	90	--	30	--
University of Michigan-Flint[c]				
Associate professor	1	--	--	--
Instructor	--	—	1	--
Lecturer	1	—	--	—
Total	2	—	1	--
Wayne State University[a]				
Professors	260	30,603	29	28,869
Associate professors	190	23,177	69	22,325
Assistant professors	221	17,526	99	17,115
Instructors	13	13,046	46	13,128
Lecturers	22	13,523	9	12,900
Total	707	--	252	--
Wayne State University[c]				
Professors	44	37,943	5	34,460
Associate professors	32	29,075	12	29,350
Assistant professors	22	23,232	26	22,600
Instructors	6	16,233	9	17,122
Lecturers	--	—	2	—
Total	104	--	54	—
Western Michigan University[a]				
Professors	189	25,374	11	24,073
Associate professors	230	19,952	58	19,345
Assistant professors	163	16,613	72	16,029
Instructors	23	12,948	17	11,914
Total	605	--	158	--
Western Michigan University[c]				
Professors	41	34,955	6	33,007
Associate professors	13	26,697	1	--
Assistant professors	8	19,658	--	--
Total	62	--	7	—

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public two-year institutions				
Alpena[a]				
Instructors	48	$ 20,005	9	$ 17,448
Bay de Noc[a]				
Undesignated	30	19,178	9	17,969
C.S. Mott[a]				
Instructors	141	22,178	72	20,248
Delta College[a]				
Professors	20	26,020	4	26,394
Associate professors	64	22,608	18	22,709
Assistant professors	28	19,400	22	19,879
Instructors	16	15,534	23	15,938
Lecturers	1	--	1	--
Total	129	--	68	--
Glen Oaks Community College[a]				
Undesignated	18	17,961	9	12,013
Gogebic Community College[a]				
Associate professors	3	17,972	2	--
Assistant professors	17	17,264	1	--
Instructors	12	12,675	1	--
Total	32	--	4	--
Gogebic Community College[c]				
Instructors	8	16,431	4	15,664
Grand Rapids Junior College[a]				
Instructors	133	20,323	58	19,822
Grand Rapids Junior College[c]				
Instructors	7	20,928	28	17,416
Henry Ford[a]				
Undesignated	130	22,878	59	20,844
Henry Ford[c]				
Undesignated	22	27,743	--	--
Highland Park[a]				
Instructors	45	--	24	--
Highland Park[c]				
Instructor	--	--	1	--
Jackson Community College[a]				
Undesignated	72	22,375	30	20,668
Kalamazoo Valley Community College[a]				
Undesignated	62	21,064	25	19,076
Kellogg Community College[a]				
Undesignated	60	22,275	29	20,917
Kirtland Community College[a]				
Instructors	14	16,725	7	14,668
Kirtland Community College[c]				
Undesignated	--	--	1	--
Lake Michigan College[a]				
Professors	6	22,282	--	--
Associate professors	10	19,758	1	--
Assistant professors	7	16,904	3	16,400
Instructors	11	15,356	14	13,618
Undesignated	--	--	1	--
Total	34	--	19	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public two-year institutions (cont.)				
Lansing Community College[a]				
Professors	6	$ 20,025	4	$ 18,600
Associate professors	5	18,744	5	16,929
Assistant professors	6	16,985	7	17,863
Instructors	6	14,668	6	14,447
Undesignated	2	--	1	--
Total	25	--	23	--
Lansing Community College[c]				
Professors	15	23,977	1	--
Associate professors	23	23,105	7	23,134
Assistant professors	25	20,560	5	19,200
Instructors	28	17,914	14	17,665
Undesignated	3	17,835	2	--
Total	94	--	29	--
Macomb County Community College[a]				
Professors	235	21,793	108	20,715
Mid Michigan Community College[a]				
Instructors	22	15,552	14	14,146
Monroe County Community College[b]				
Montcalm Community College[a]				
Instructors	20	17,858	7	16,557
Muskegon Community College[a]				
Instructors	83	21,365	38	18,785
North Central Michigan College[a]				
Instructors	20	16,875	8	15,538
North Central Michigan College[c]				
Instructors	4	20,645	1	--
Northwestern Michigan College[a]				
Professors	13	26,159	1	--
Associate professors	10	22,505	--	--
Assistant professors	22	18,580	2	--
Instructors	20	14,887	12	14,750
Total	65	--	15	--
Northwestern Michigan College[c]				
Associate professors	1	--	1	--
Assistant professors	3	21,179	1	--
Instructors	4	17,840	3	18,797
Total	8	--	5	--
Oakland Community College[a]				
Undesignated	170	24,258	78	21,844
St. Clair County Comm College[a]				
Undesignated	66	20,164	29	18,474
St. Clair County Comm College[c]				
Undesignated	1	--	10	19,301
Schoolcraft College[a]				
Instructors	102	23,032	37	21,854
Schoolcraft College[c]				
Instructors	1	--	1	--
Southwestern Michigan College[a]				
Instructors	27	15,542	12	13,825
Southwestern Michigan College[c]				
Instructor	--	--	1	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Public two-year institutions (cont.)				
Washtenaw Community College[a]				
Instructors	95	$ 23,183	26	$ 22,750
Wayne County Comm College[a]				
Instructors	85	22,972	100	19,834
West Shore Community College[a]				
Undesignated	24	16,589	6	16,294
West Shore Community College[c]				
Undesignated	1	--	--	--
Independent institutions				
Adrian[a]				
Professors	15	21,292	1	--
Associate professors	9	19,065	4	19,528
Assistant professors	15	16,512	2	--
Instructors	6	13,149	3	13,315
Total	45	--	10	--
Albion[a]				
Professors	30	29,723	6	26,490
Associate professors	29	23,418	4	21,731
Assistant professors	20	18,865	7	17,476
Instructors	6	15,064	5	14,665
Total	85	--	22	--
Alma[a]				
Professors	20	23,458	2	--
Associate professors	21	19,240	5	17,530
Assistant professors	14	15,604	3	16,657
Total	55	--	10	--
Andrews[b]				
Aquinas[a]				
Professors	4	21,575	--	--
Associate professors	18	17,282	2	--
Assistant professors	18	14,723	6	13,563
Total	40	--	8	--
Aquinas[c]				
Assistant professors	2	--	--	--
Baker[a]				
Undesignated	2	--	9	12,056
Baker[c]				
Undesignated	2	--	3	16,111
Calvin[a]				
Professors	99	22,127	5	22,208
Associate professors	25	19,442	2	--
Assistant professors	38	16,622	12	17,545
Instructors	12	12,808	7	13,340
Total	174	--	26	--
Calvin Theological Seminary[a]				
Professors	12	23,965	--	--
Associate professors	3	20,880	--	--
Total	15	--	--	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Independent institutions (cont.)				
Ctr. for Creative Studies[a]				
Professors	6	$ 21,033	--	$ —
Associate professors	6	18,259	3	13,301
Assistant professors	11	14,847	2	-
Instructors	2	--	--	—
Undesignated	6	11,613	3	11,163
Total	31	—	8	—
Cleary[b]				
Concordia[c]				
Professors	10	18,802	--	—
Associate professors	5	17,796	1	—
Assistant professors	9	14,755	2	—
Instructors	3	12,828	4	12,465
Total	27	—	7	—
Cranbrook Academy of Art[c]				
Undesignated	8	16,719	--	—
Davenport College of Business[a]				
Undesignated	12	17,744	13	18,270
Davenport College of Business[c]				
Undesignated	6	23,664	1	—
Detroit Bible[a]				
Associate professors	4	12,938	1	—
Assistant professors	1	—	1	—
Instructors	3	10,533	--	—
Total	8	--	2	—
Detroit College of Business[a]				
Undesignated	11	17,206	8	15,323
Detroit College of Law[c]				
Professors	16	38,184	--	—
Associate professors	7	20,986	1	—
Total	23	—	1	—
Detroit Institute of Technology[b]				
Duns Scotus - (Instructional services contributed)				
Faithway Baptist[b]				
General Motors[b]				
Grace Bible[c]				
Professor	1	--	--	—
Assistant professors	6	13,567	2	--
Instructor	1	--	--	—
Total	8	—	2	—
Grand Rapids Baptist College and Seminary[a]				
Professors	11	16,137	--	—
Associate professors	8	14,782	1	—
Assistant professors	14	12,321	6	12,169
Instructors	5	10,322	2	—
Total	38	--	9	—
Grand Rapids Baptist College and Seminary[c]				
Professors	2	—	—	—

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Independent institutions (cont.)				
Grand Rapids School of Bible & Music[c]				
Undesignated	9	$ 11,848	2	$ --
Great Lakes Bible[a]				
Professors	8	10,476	--	--
Associate professors	2	--	--	--
Instructor	--	--	1	--
Total	10	--	1	--
Hillsdale College[a]				
Professors	8	22,063	3	20,100
Associate professors	17	17,853	3	17,233
Assistant professors	16	15,500	2	--
Instructors	5	13,760	2	--
Total	46	--	10	--
Hope College[b]				
John Wesley[a]				
Undesignated	11	12,828	1	--
John Wesley[c]				
Undesignated	3	14,400	2	--
Jordan College[b]				
Kalamazoo College[a]				
Professors	25	26,806	3	23,818
Associate professors	22	21,071	3	19,197
Assistant professors	20	15,645	6	14,528
Instructors	5	13,485	2	--
Total	72	--	14	--
Lawrence Institute of Technology[a]				
Professors	8	21,538	--	
Associate professors	21	19,057	2	--
Assistant professors	16	16,619	4	15,300
Total	45	--	6	--
Lewis College of Business-(All instructional faculty are employed on part-time basis)				
Madonna[a]				
Professors	--	--	2	--
Associate professors	1	--	2	--
Assistant professors	4	14,325	9	13,500
Instructors	8	11,750	28	12,553
Total	13	--	41	--
Madonna[c]				
Assistant professors	1	--	4	19,200
Instructors	6	16,333	3	15,233
Total	7	--	7	--
Marygrove[b]				
Mercy College[a]				
Professors	4	19,810	4	20,378
Associate professors	12	17,407	6	16,961
Assistant professors	16	14,757	16	14,595
Instructors	--	--	11	12,245
Total	32	--	38	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Independent institutions (cont.)				
Mercy College[c]				
Professors	1	$ --	--	$ --
Associate professors	1	--	3	--
Undesignated	2	--	1	--
Total	4	--	4	--
Merrill-Palmer[a]				
Undesignated	4	28,131	6	20,881
Michigan Christian Jr. College[a]				
Undesignated	7	12,588	4	11,082
Muskegon Business[a]				
Undesignated	8	11,263	6	11,510
Muskegon Business[c]				
Undesignated	2	--	1	--
Nazareth[a]				
Professors	1	--	3	17,657
Associate professors	2	--	1	--
Assistant professors	4	11,817	12	12,105
Instructors	1	--	5	10,213
Total	8	--	21	--
Nazareth[c]				
Associate professor	--	--	1	--
Assistant professor	1	--	--	--
Total	1	--	1	--
Northwood[a]				
Professors	--	--	1	--
Associate professors	8	16,143	--	--
Assistant professors	4	12,937	3	11,017
Instructors	7	12,807	2	--
Total	19	--	6	--
Northwood[c]				
Professors	3	26,333	--	--
Associate professors	4	21,687	1	--
Assistant professors	6	21,400	3	17,966
Instructor	1	--	--	--
Total	14	--	4	--
Olivet College[a]				
Professors	11	16,432	--	--
Associate professors	15	14,094	1	--
Assistant professors	6	12,429	3	11,075
Instructors	2	--	1	--
Total	34	--	5	--
Olivet College[c]				
Professors	2	--	--	--
Associate professor	1	--	--	--
Total	3	--	--	--
Sacred Heart[a]				
Professors	4	4,750	--	--
Associate professors	3	11,333	--	--
Instructors	3	--	--	--
Total	10	--	--	--

TABLE IV-36. FACULTY SALARIES IN MICHIGAN HIGHER EDUCATION: 1977-1978 (cont.)

University	Men		Women	
	Number of persons	Mean salary	Number of persons	Mean salary
Independent institutions (cont.)				
Shaw College[a]				
Professors	7	$14,244	1	$ --
Associate professors	8	12,063	4	13,839
Assistant professors	15	10,503	3	11,696
Instructors	--	--	15	11,009
Total	30	--	23	--
Siena Heights[a]				
Associate professors	4	14,016	1	--
Assistant professors	10	13,473	6	11,515
Instructors	5	11,839	4	10,771
Lecturer	1	--	1	--
Total	20	--	12	--
Siena Heights[c]				
Assistant professors	3	18,064	--	--
Instructors	1	--	1	--
Total	4	--	1	--
Spring Arbor[a]				
Professors	9	16,874	--	--
Associate professors	11	14,945	4	14,141
Assistant professors	8	13,510	4	13,152
Instructors	3	11,563	--	--
Total	31	--	8	--
Suomi College[a]				
Undesignated	12	15,088	6	14,245
Thomas M. Cooley Law School[c]				
Professors	8	45,942	--	--
Associate professors	3	36,635	2	--
Assistant professors	6	24,502	--	--
Total	17	--	2	--
University of Detroit[a]				
Professors	68	26,421	6	23,658
Associate professors	74	23,253	12	19,742
Assistant professors	70	19,460	18	16,447
Instructors	10	13,508	12	14,007
Total	222	--	48	--
Walsh College[a]				
Professor	1	--	--	--
Associate professors	2	--	1	--
Total	3	--	1	--
Western Theo.[c]				
Professors	6	17,533	--	--
Associate professor	1	--	--	--
Assistant professors	4	13,287	1	--
Total	11	--	1	--

SOURCE: Michigan Department of Education, special release.
a. Nine months' salary. b. Data not reported. c. Twelve months' salary.

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public colleges and universities					
Central Michigan Univ. Mt. Pleasant	$ 923	$ 1,598	$ 675	$ 275	$ 3,471
Eastern Michigan Univ. Ypsilanti	849	1,647	675	275	3,446
Ferris State College Big Rapids	850	1,608	675	275	3,408
Grand Valley State College Allendale	907	1,713	675	275	3,570
Lake Superior State College Sault Ste. Marie	852	1,636	675	275	3,438
Michigan State University East Lansing					
Freshman, Sophomore	1,104	1,577	675	275	3,631
Junior, Senior	1,194	1,577	675	275	3,721
Michigan Technological University Houghton	861	1,630	675	275	3,441
Northern Michigan University Marquette	959	1,750	675	275	3,659
Oakland University Rochester	869	1,720	675	275	3,539
Saginaw Valley State College University Center	846	1,644	675	275	3,440
University of Michigan Ann Arbor					
Freshman, Sophomore	1,274	2,032	675	275	4,256
Junior, Senior	1,424	2,032	675	275	4,406
University of Michigan/Dearborn Dearborn	948	1,350	675	500	3,473
University of Michigan/Flint Flint	882	1,350	675	500	3,407
Wayne State University Detroit					
Freshman, Sophomore	1,074	1,350	675	500	3,599
Junior, Senior	1,168	1,350	675	500	3,693
Western Michigan University Kalamazoo	820	1,545	675	275	3,315
Nonpublic colleges and universities					
Adrian College, Adrian	3,494	1,610	675	275	6,054
Albion College, Albion	4,017	1,800	675	275	6,767
Alma College, Alma	3,781	1,740	675	275	6,471
Andrews University Berrien Springs					
Undergraduate	3,475	1,830	675	275	6,255
Graduate	2,419	1,830	675	275	5,199

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
Aquinas College					
Grand Rapids	$ 3,174	$ 1,700	$ 675	$ 275	$ 5,824
Baker Jr. College of Business					
Flint	1,800	1,350	675	500	4,325
Calvin College					
Grand Rapids	2,680	1,380	675	275	5,010
Center for Creative Studies					
College of Art and Design					
Detroit	2,900	1,350	675	500	5,425
Cleary College, Ypsilanti	1,605	1,350	675	500	4,130
Concordia College					
Ann Arbor	1,790	1,505	675	275	4,245
Cranbrook Academy of Art					
Bloomfield Hills	3,046	1,600	675	275	5,596
Davenport College of Business					
Grand Rapids	2,208	1,610	675	275	4,768
Detroit Bible College					
Detroit	1,596	1,350	675	500	4,121
Detroit College of Business					
Dearbor	2,045	1,350	675	500	4,570
Detroit College of Law					
Detroit					
Day	2,600	1,350	675	500	5,125
Evening	1,950	1,350	675	500	4,475
Detroit Institute of Technology					
Detroit	1,980	1,350	675	500	4,505
Faithway Baptist College					
Belleville	1,287	1,633	675	275	3,870
General Motors Institute					
Flint	1,147	1,080	540	220	2,987
Grace Bible College					
Grand Rapids	1,240	1,480	675	275	3,670
Grand Rapids Baptist College					
Grand Rapids	2,290	1,640	675	275	4,880
Great Lakes Bible College					
Lansing	1,459	1,474	675	275	3,883
Hillsdale College, Hillsdale	3,840	1,900	675	275	6,690
Hope College, Holland	3,460	1,590	675	275	6,000
John Wesley College at Owosso					
Owosso	3,000	2,340	675	275	6,290
Jordan College					
Cedar Springs	1,745	1,200	675	275	3,895

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
Kalamazoo College					
Kalamazoo	$ 4,191	$ 1,758	$ 675	$ 275	$ 6,899
Kendall School of Design					
Grand Rapids	2,120	1,350	675	500	4,645
Lawrence Institute of Technology					
Southfield					
Undergraduate	1,470	1,350	675	500	3,995
Graduate	1,635	1,350	675	500	4,160
Lewis College of Business					
Detroit	2,970	1,350	675	275	5,270
Madonna College, Livonia	1,268	1,515	675	275	3,733
Marygrove College, Detroit					
Undergraduate	2,828	1,880	675	275	5,658
Graduate	1,617	1,880	675	275	4,447
Mercy College of Detroit					
Detroit	2,400	1,624	675	275	4,974
Merrill-Palmer Institute					
Detroit					
Junior, Senior	2,800	1,850	675	275	5,600
Graduate	3,000	1,850	675	275	5,800
Michigan Christian Jr. College					
Rochester	1,846	1,350	675	275	4,146
Muskegon Business College					
Muskegon	1,755	1,350	675	500	4,280
Nazareth College					
Nazareth	3,150	1,570	675	275	5,670
Northwood Institute, Midland	2,550	1,500	675	275	5,000
Olivet College, Olivet	3,430	1,700	675	275	6,080
Reformed Bible College					
Association, Detroit	1,570	1,300	675	275	3,820
Sacred Heart Seminary					
Detroit	1,100	1,000	675	275	3,050
Shaw College of Detroit					
Detroit	2,730	1,350	675	500	5,255
St. Mary's College					
Orchard Lake	1,600	1,200	675	275	3,750
Siena Heights College, Adrian					
Undergraduate	2,250	1,600	675	275	4,800
Graduate	1,920	1,600	675	275	4,470
Spring Arbor College					
Spring Arbor	3,100	1,450	675	275	5,500
Suomi College, Hancock	4,400	1,800	675	275	7,150
Thomas Cooley Law School[d]					
Lansing	2,409	2,025	1,012	750	6,196

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
University of Detroit					
Detroit-Undergraduate	$ 3,480	$ 2,000	$ 675	$ 275	$ 6,430
Dental Assisting[d]	1,500	3,000	1,012	412	5,924
University of Detroit					
Detroit					
Graduate Programs					
College: Law, day	3,302	2,000	675	275	6,252
College: General graduate	2,286	2,000	675	275	5,236
College: Dentistry	5,950	2,000	675	275	8,900
Walsh College/Act. and Bus.					
Administration, Detroit					
Undergraduate	1,560	1,350	675	500	4,085
Graduate	1,248	1,350	675	500	3,773
Public Community Colleges					
Alpena Comm. College					
Alpena					
Resident of district	496	1,350	675	500	3,021
Non-resident of district	806	1,575	675	275	3,331
Bay De Noc Community College					
Escanaba					
Resident of district	449	1,350	675	500	2,974
Non-resident of district	650	1,425	675	275	3,025
Delta College					
University Center					
Resident of district	539	1,350	675	500	3,064
Non-resident of district	973	1,350	675	500	3,498
C.S. Mott Community College					
Flint					
Resident of district	558	1,350	675	500	3,083
Non-resident of district	806	1,350	675	500	3,331
Glen Oaks Community College					
Centreville					
Resident of district	569	1,350	675	500	3,094
Non-resident of district	817	1,350	675	500	3,342
Gogebic Comm. College					
Ironwood					
Resident of district	464	1,350	675	500	2,989
Non-resident of district	681	1,350	675	500	3,206
Grand Rapids Jr. College					
Grand Rapids					
Resident of district	527	1,350	675	500	3,052
Non-resident of district	884	1,350	675	500	3,409

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges (cont.)					
Henry Ford Community College					
Dearborn					
Resident of district	$ 413	$ 1,350	$ 675	$ 500	$ 2,938
Non-resident of district	692	1,350	675	500	3,217
Highland Park Community College					
Highland Park					
Resident of district	480	1,350	675	500	3,005
Non-resident of district	780	1,350	675	500	3,305
Jackson Community College					
Jackson					
Resident of district	589	1,350	675	500	3,114
Non-resident of district	837	1,350	675	500	3,362
Kalamazoo Valley Comm. College					
Kalamazoo					
Resident of district	465	1,350	675	500	2,990
Non-resident of district	930	1,350	675	500	3,455
Kellogg Community College					
Battle Creek					
Resident of district	496	1,350	675	500	3,021
Non-resident of district	806	1,350	675	500	3,331
Kirtland Community College					
Roscommon					
Resident of district	384	1,350	675	500	2,909
Non-resident of district	564	1,350	675	500	3,089
Lake Michigan College					
Benton Harbor					
Resident of district	500	1,350	675	500	3,025
Non-resident of district	680	1,350	675	500	3,205
Lansing Community College					
Lansing					
Resident of district	510	1,350	675	500	3,035
Non-resident of district	780	1,350	675	500	3,305
Macomb County Comm. College					
Warren					
Resident of district	480	1,350	675	500	3,005
Non-resident of district	883	1,350	675	500	3,408
Mid-Michigan Comm. College					
Harrison					
Resident of district	450	1,350	675	500	2,975
Non-resident of district	636	1,350	675	500	3,161
Monroe County Comm. College					
Monroe					
Resident of district	465	1,350	675	500	2,990
Non-resident of district	705	1,350	675	500	3,230
Montcalm Comm. Coll., Sidney					
Resident of district	450	1,350	675	500	2,975
Non-resident of district	630	1,350	675	500	3,155

TABLE IV-37. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 9 APRIL 1979: EXPENSE FOR 1979-1980 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
		Public Community Colleges (cont.)			
Muskegon Comm. College Muskegon					
Resident of district	$ 434	$ 1,350	$ 675	$ 500	$ 2,959
Non-resident of district	651	1,350	675	500	3,176
North Central Michigan College Petoskey					
Resident of district	406	1,350	675	500	2,931
Non-resident of district	586	1,680	675	275	3,216
Northwestern Michigan College, Traverse City					
Resident of district	669	1,350	675	500	3,194
Service Area	1,041	1,350	575	500	3,566
Non-resident of district	1,137	1,550	675	275	3,637
Oakland Comm. College Bloomfield Hills					
Resident of district	475	1,350	675	500	3,000
Non-resident of district	785	1,350	675	500	3,310
St. Clair Comm. College Port Huron					
Resident of district	550	1,350	675	500	3,075
Non-resident of district	860	1,350	675	500	3,385
Schoolcraft Coll., Livonia					
Resident of district	552	1,350	675	500	3,077
Non-resident of district	877	1,350	675	500	3,402
Southwestern Michigan Coll. Dowagiac					
Resident of district	496	1,350	675	500	3,021
Non-resident of district	620	1,350	675	500	3,145
Washtenaw Comm. College Ann Arbor					
Resident of district	455	1,350	675	500	2,980
Non-resident of district	877	1,350	675	500	3,402
Wayne County Comm. College Detroit					
Resident of district	436	1,350	675	500	2,961
Non-resident of district	556	1,350	675	500	3,081
West Shore Comm. Coll. Scottville					
Resident of district	570	1,350	675	500	3,095
Non-resident of district	840	1,350	675	500	3,365

SOURCE: Michigan Department of Education, special release.
NOTE: Figures were developed by the Michigan Department of Education office of student financial assistance services for use in the scholarship and tuition grant programs under their jurisdiction.
a. A standard of $1,350 is assumed at institutions where the dormitories can accommodate less than 10 percent of the student body.
b. A standard of $675 is assumed at all institutions.
c. A standard of $275 is assumed at institutions where the dormitories can accommodate 10 percent or more of the student body; a standard of $500 is assumed where the dormitories can accommodate less than 10 percent.
d. Figures for Cooley Law School, Lansing and University of Detroit, dental assisting, represent 12 month budget figures.

TABLE IV-38. EDUCATIONAL AND GENERAL REVENUES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEAR 1978

(In thousands of dollars)

Institution	Tuition and fees	State appropriations	Sales and services		Other	Total
			Educational activities	Auxillary enterprises[a]		
Central Michigan University	17,476	23,386	1,784	13,424	489	59,231
Eastern Michigan University	12,520	27,542	619	9,649	1,329	54,964
Ferris State College	7,544	17,033	1,150	11,871	645	39,775
Grand Valley State College	5,134	10,565	643	2,517	497	22,712
Lake Superior State College	1,425	4,459	9	2,515	206	9,306
Michigan State University	48,409	116,323	11,174	53,824	10,358	289,217
Michigan Tech University	6,259	15,215	638	7,769	402	36,574
Northern Michigan University	6,522	16,343	982	7,758	250	33,822
Oakland University	7,152	15,301	1,138	7,424	391	36,025
Saginaw Valley College	1,813	5,126	51	1,063	141	9,085
University of Michigan						
Ann Arbor	61,401	119,604	18,018	31,487	1,239	452,529
Dearborn	3,883	7,517	176	652	58	12,752
Flint	2,209	6,755	100	104	(44)	9,384
Wayne State University	33,155	100,196	5,346	9,115	853	193,629
Western Michigan University	16,721	37,318	2,888	16,129	(232)	79,819
TOTAL	231,622	522,684	44,717	175,300	16,582	1,338,789

SOURCE: Michigan Department of Education, special release.

a. Includes hospital revenues at the University of Michigan.

TABLE IV-39. EDUCATIONAL AND GENERAL EXPENDITURES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEAR 1978

(In thousands of dollars)

Institution	Instruction	Research	Public service	Plant operation and maintenance	Auxiliary expenditures[a]	Total[b]
Central Michigan University	23,372	314	1,314	3,592	13,895	58,893
Eastern Michigan University	21,771	250	1,629	4,824	9,114	54,862
Ferris State College	15,673	66	735	3,043	9,263	39,355
Grand Valley State College	8,633	86	1,141	1,952	3,240	22,782
Lake Superior State College	2,716	21	255	995	2,542	9,060
Michigan State University	100,403	41,460	24,873	21,838	53,787	289,651
Michigan Technical University	11,011	4,614	537	3,063	7,732	35,402
Northern Michigan University	10,987	154	1,027	3,053	8,392	33,417
Oakland University	12,650	1,336	1,675	2,935	7,160	35,269
Saginaw Valley College	3,196	54	44	754	1,043	9,093
University of Michigan						
Ann Arbor	119,240	61,750	4,609	33,762	30,975	444,485
Dearborn	5,402	72	293	1,438	605	12,382
Flint	4,146	25	107	1,282	62	9,294
Wayne State University	91,770	13,917	5,032	19,699	10,176	193,726
Western Michigan University	30,391	761	1,680	7,114	18,110	79,521
TOTAL	461,359	124,880	44,949	109,345	175,995	1,327,192

SOURCE: Michigan Department of Education, special release.

a. Includes hospital expenditures at the University of Michigan.

b. Also includes academic support, student services, institutional support, scholarships and fellowships, and independent operations.

V. THE LABOR MARKET

During the late 1950s and early 1960s, Michigan experienced a decline in employment opportunities as a result of stagnation in the automotive sector. Following the recession of 1961, America recovered its appetite for large cars, and this state benefitted accordingly. By the mid-1960s, Detroit employers were recruiting southern labor to keep the production lines humming.

Michigan's share of employment began to slip in the 1970 recession and reached a low point (4.0 percent) during 1975. The next year, 4.1 percent of the nation's employed were in this state; in 1977, 4.2 percent; and in 1978, 4.1 percent. It should also be pointed out that the typical Michigan worker puts in more hours each week than his national counterpart. (Table XV-8 in the chapter on manufacturing provides some insight into the magnitude of difference.) The tendency among Michigan employers is to vary the length of the workweek and the number of workers to meet changes in demand; nationally, both employment and the length of workweek are less volatile.

During 1978, civilian employment in this state averaged 3,913,000, a 3.5 percent increase over 1977. Nationally, civilian employment gained by 4.2 percent.

Among the broad occupational groupings, the ranks of nonfarm managers and administrators increased most rapidly in Michigan between 1977 and 1978 (8.1 percent compared with 4.6 percent for the nation). There was a 7.5 percent increase in nontransport operatives (assembly line workers, and so forth), compared with 5.0 percent nationally. Michigan also outpaced the nation in the increase in clerical workers (6.8 percent versus 5.0 percent) and service workers (4.3 percent versus 3.6 percent).

The number of farm workers (farmers plus hired help) decreased between 1977 and 1978 by 16 percent in the state compared with a modest increase nationwide. The number of Michigan nonfarm laborers also declined (by 4.4 percent); there was a 5.1 percent increase in this category for the United States as a whole. Professional and technical workers also decreased in Michigan, by nearly one percent, in the face of a 4 percent gain nationwide.

In the categories of sales workers, craft workers, and transport equipment operatives, Michigan posted gains between 1977 and 1978 of 1.8 percent, 2.8 percent, and .7 percent; the national figures were 3.9 percent, 4.3 percent, and 1.9 percent.

Average unemployment rates for whites and blacks in the Michigan and U.S. civilian labor forces are shown in Table V-2. Among whites, the unemployment rate declined for all age groups between 1977 and 1978. Among blacks, the rate for males 16 and 17 years old and for females 20-24 years old increased both here and in the nation. Within Michigan, there also was increased unemployment among black males aged 25 - 64.

Generally speaking, blacks experience higher unemployment than whites, and females higher unemployment than males. Michigan also has higher rates of unemployment than the nation, except in the category white male, aged 45 - 64.

Other data released by the Bureau of Labor Statistics reveal that Michigan's white male labor force shrank, whereas the nation's grew modestly. Michigan's white female labor force grew, but at a rate of less than 3 percent (over 4 percent nationally). Michigan's black male labor force expanded by about 8 percent (the nation's, 4 percent); Michigan's black female labor force expanded by nearly 20 percent (8 percent nationally).

The civilian work force is the sum of the unemployed, those workers involved in labor disputes, and total employment (wage and salary workers, farm workers, self-employed unpaid family workers, and domestics). The unemployment rate is the number of unemployed divided by the total labor force, usually stated as a percentage. The work force includes all those persons 16 years of age and older who are classified as employed or unemployed. Those not in the labor force are without a job and are not looking for work for reasons of health, incarceration, college status, retirement, youth, voluntary idleness, involuntary idleness but not looking for a job, and so forth.

Michigan Employment Security Commission estimates are made monthly for the state, the major labor market areas (these coincide with the Standard Metropolitan Statistical Areas for the most part), for small labor market areas, and for the Upper Peninsula. Figures presented in this Abstract are annual averages of the 12 monthly figures for these areas.

Earnings data shown in Tables V-22 through V-26 could have appeared in chapter VI, which deals with income. They are included here because they indicate what workers receive for their efforts, whereas income data in chapter VI reflect the economic situation among the population as a whole, not just among breadwinners.

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TABLE V-1. CIVILIAN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT IN MICHIGAN AND THE UNITED STATES: 1956-1978

(Labor force, employment, and unemployment in thousands)

Year	Michigan				United States			
	Labor force	Employ-ment	Unemployment		Labor force	Employ-ment	Unemployment	
			Number	Rate			Number	Rate
1956	3,141	2,923	218	6.9	66,552	63,799	2,750	4.1
1957	3,076	2,874	202	6.6	66,929	64,071	2,859	4.3
1958	3,045	2,627	418	13.7	67,639	63,036	4,602	6.8
1959	2,968	2,718	250	8.4	68,369	64,630	3,740	5.5
1960	2,959	2,760	199	6.7	69,628	65,778	3,852	5.5
1961	2,954	2,655	299	10.1	70,459	65,746	4,714	6.7
1962	2,939	2,734	205	7.0	70,614	66,702	3,911	5.5
1963	2,967	2,801	166	5.6	71,833	67,762	4,070	5.7
1964	3,071	2,923	148	4.8	73,091	69,305	3,786	5.2
1965	3,211	3,086	125	3.9	74,455	71,088	3,366	4.5
1966	3,369	3,252	117	3.5	75,770	72,895	2,875	3.8
1967	3,450	3,296	154	4.5	77,347	74,372	2,975	3.8
1968	3,501	3,350	151	4.3	78,737	75,920	2,817	3.6
1969	3,594	3,449	145	4.0	80,734	77,902	2,832	3.5
1970	3,596	3,356	241	6.7	82,715	78,627	4,088	4.9
1971	3,621	3,345	277	7.6	84,113	79,120	4,993	5.9
1972	3,705	3,445	260	7.0	86,542	81,702	4,840	5.6
1973	3,808	3,587	221	5.8	88,714	84,409	4,304	4.9
1974	3,883	3,595	288	7.4	91,011	85,935	5,076	5.6
1975	3,901	3,414	487	12.5	92,613	84,783	7,830	8.5
1976	3,999	3,625	374	9.4	94,773	87,485	7,288	7.7
1977	4,118	3,781	337	8.2	97,401	90,546	6,855	7.0
1978	4,202	3,913	289	6.9	100,420	94,373	6,047	6.0

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Monthly Labor Review (Washington, D.C.: monthly), January 1979, Table A-1.

TABLE V-2. ANNUAL AVERAGE EMPLOYMENT STATUS OF THE MICHIGAN POPULATION 16 YEARS OF AGE OR OLDER, BY AGE, RACE, AND SEX: 1978

Age and sex	Total employment (000)	Unemployment		Not in the labor force				Total population (000)
		Number (000)	Rate (percent)	Housekeeping (000)	In school (000)	Unable to work (000)	Other (000)	
				All persons				
16-17 years	160	41	20.4	5	136	1	31	374
18-19 years	239	41	14.7	18	60	1	19	379
20-24 years	586	60	9.3	92	53	4	17	812
25-44 years	1,699	106	5.9	455	25	25	51	2,362
45-64 years	1,158	37	3.1	450	2	83	149	1,880
65 and older	71	3	4.6	351	0	51	363	840
Total	3,913	289	6.9	1,371	277	164	631	6,646
				Males				
16-17 years	77	21	21.6	1	66	0	16	180
18-19 years	118	23	16.4	0	30	0	8	180
20-24 years	325	29	8.2	1	33	3	10	401
25-44 years	1,066	50	4.5	1	12	15	22	1,165
45-64 years	730	18	2.4	2	1	61	101	913
65 and older	44	2	4.3	2	0	21	276	345
Total	2,360	144	5.7	7	141	100	433	3,185
				Females				
16-17 years	83	20	19.3	5	70	1	15	193
18-19 years	121	18	12.9	18	30	1	11	199
20-24 years	261	32	10.8	91	20	1	7	411
25-44 years	633	56	8.1	454	14	10	29	1,196
45-64 years	428	19	4.3	448	2	21	48	967
65 and older	27	1	5.0	349	0	30	87	495
Total	1,553	146	8.6	1,365	136	64	198	3,461

TABLE V-2. ANNUAL AVERAGE EMPLOYMENT STATUS OF THE MICHIGAN POPULATION 16 YEARS OF AGE OR OLDER, BY AGE, RACE, AND SEX: 1978 (cont.)

Age and sex	Total employment (000)	Unemployment		Not in the labor force				Total population (000)
		Number (000)	Rate (percent)	Housekeeping (000)	In school (000)	Unable to work (000)	Other (000)	
				White				
16-17 years	149	33	18.3	4	111	1	26	324
18-19 years	220	30	11.8	13	48	0	15	326
20-24 years	527	43	7.5	81	45	4	15	715
25-44 years	1,493	80	5.1	414	19	20	40	2,065
45-64 years	1,031	29	2.7	406	2	65	123	1,656
65 and older	66	4	5.0	320	0	46	330	767
Total	3,487	218	5.9	1,239	226	135	549	5,855
				White males				
16-17 years	72	16	17.8	1	55	0	13	156
18-19 years	109	18	14.2	0	24	0	6	158
20-24 years	291	24	7.6	1	28	3	9	355
25-44 years	954	37	3.8	0	10	11	16	1,029
45-64 years	659	14	2.0	2	1	49	82	806
65 and older	41	2	4.9	2	0	19	252	316
Total	2,125	110	4.9	5	118	82	379	2,819
				White females				
16-17 years	78	18	18.6	4	56	1	13	169
18-19 years	111	12	9.4	13	24	0	8	169
20-24 years	236	19	7.5	81	17	1	6	360
25-44 years	540	42	7.3	413	9	8	23	1,036
45-64 years	372	15	3.8	405	1	16	41	850
65 and older	26	1	5.3	318	0	27	78	451
Total	1,362	107	7.3	1,234	109	53	170	3,035
				Black and other nonwhite				
16-17 years	11	8	41.8	1	24	0	6	49
18-19 years	19	12	37.6	5	12	0	5	52
20-24 years	59	18	22.9	10	7	0	2	97

TABLE V-2. ANNUAL AVERAGE EMPLOYMENT STATUS OF THE MICHIGANPOPULATION 15 YEARS OF AGE OR OLDER, BY AGE, RACE, AND SEX: 1978 (cont.)

Age and sex	Total employment (000)	Unemployment		Not in the labor force				Total population (000)
		Number (000)	Rate (percent)	Housekeeping (000)	In school (000)	Unable to work (000)	Other (000)	
				Black and other nonwhite (cont.)				
25-44 years	205	27	11.5	41	6	5	12	296
45-64 years	127	9	6.3	44	1	18	26	224
65 and older	5	0	-1.6	31	0	5	33	73
Total	426	72	14.4	132	50	29	82	791
				Males				
16-17 years	6	6	50.7	0	11	0	3	25
18-19 years	9	5	35.6	0	6	0	2	22
20-24 years	34	5	13.0	0	5	0	1	46
25-44 years	112	13	10.5	1	1	3	6	136
45-64 years	71	4	5.5	1	0	12	19	107
65 and older	3	0	-2.4	0	0	2	24	29
Total	235	33	12.4	1	23	18	54	365
				Females				
16-17 years	5	2	27.6	1	14	0	3	24
18-19 years	10	6	39.4	4	6	0	3	30
20-24 years	25	12	33.4	10	2	0	1	51
25-44 years	93	13	12.6	41	5	2	6	160
45-64 years	56	4	7.2	43	1	5	7	117
65 and older	1	0	.0	31	0	3	9	44
Total	191	39	16.8	131	27	11	28	426

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, special release.

TABLE V-3. ADULT CIVILIAN LABOR FORCE, LABOR FORCE PARTICIPATION RATE, AND CIVILIAN EMPLOYMENT IN THE STATE OF MICHIGAN, BY RACE AND SEX, ANNUAL AVERAGES OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1978

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978
Civilian labor force (000)							
White							
Men 20 years and over	1,884	1,926	1,929	1,954	1,973	2,025	2,021
Women 20 years and over	1,002	1,040	1,063	1,154	1,203	1,233	1,250
Negro and other races							
Men 20 years and over	200	200	216	223	211	225	242
Women 20 years and over	139	140	151	153	158	170	206
Participation rate[a]							
White							
Men 20 years and over	82.8	82.3	82.2	80.8	81.1	81.8	80.6
Women 20 years and over	40.3	41.1	42.1	44.4	46.0	46.7	46.3
Negro and other races							
Men 20 years and over	82.3	75.5	76.6	73.1	71.8	70.8	76.1
Women 20 years and over	47.0	46.5	47.3	44.7	45.0	48.2	55.4
Civilian employment (000)							
White							
Men 20 years and over	1,786	1,848	1,869	1,755	1,843	1,927	1,945
Women 20 years and over	947	979	1,016	1,040	1,091	1,139	1,174
Negro and other races							
Men 20 years and over	183	180	196	180	191	203	220
Women 20 years and over	120	124	132	127	135	144	175

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973); 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table I, and special release.

a. Civilian labor force as a percentage of civilian noninstitutional population.

TABLE V-4. LEVEL AND RATE OF ADULT UNEMPLOYMENT IN THE STATE OF MICHIGAN, BY RACE AND SEX, ANNUAL AVERAGE OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1978

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978
Total unemployed (1,000)							
White							
Men 20 years and over	98	79	58	200	130	98	77
Women 20 years and over	55	60	49	113	113	93	77
Negro and other races							
Men 20 years and over	18	19	21	44	20	21	22
Women 20 years and over	21	16	19	25	25	27	29
Unemployment rate [a]							
White							
Men 20 years and over	5.2	4.1	3.0	10.2	6.6	4.8	3.8
Women 20 years and over	5.5	5.8	4.6	9.8	9.4	7.5	6.2
Negro and other races							
Men 20 years and over	9.0	9.5	9.7	19.7	9.5	9.3	9.1
Women 20 years and over	15.1	11.4	12.6	16.3	15.8	15.9	14.1

SOURCES: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973); 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table I; and special release.

a. Unemployment as a percentage of civilian labor force.

TABLE V-5. FULL AND PART-TIME STATUS OF THE CIVILIAN LABOR FORCE IN MICHIGAN: 1971, 1972, AND 1975-1978

(In thousands)

	1971	1972	1975	1976	1977	1978
Full-time labor force						
Employed:						
Full-time schedules	2,763	2,876	2,740	2,904	3,061	3,201
Part-time for economic reason	107	107	155	157	157	148
Unemployed (looking for full-time work):						
Number	212	198	409	296	262	223
Percentage of full-time force	6.9	6.2	12.4	8.8	7.5	6.2
TOTAL	3,082	3,181	3,305	3,358	3,479	3,571
Part-time labor force						
Employed on voluntary part-time	471	490	536	561	564	564
Unemployed (looking for part-time work):						
Number	64	63	80	78	75	67
Percentage of part-time labor force	12.0	11.5	13.0	12.2	11.7	10.6
TOTAL	535	554	617	638	639	631

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, published in Washington, D.C., for the following years: 1971, Report 402 (1972), Table 4; 1972, Report 421 (1973), Table 4; 1975, Report 481, (1977), Table 7; 1976, Report 504 (1977), Table 4; State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.; 1978), Table 2; and special release.

TABLE V-6. EMPLOYMENT STATUS OF THE MICHIGAN CIVILIAN LABOR FORCE, BY OCCUPATION GROUP: 1976-1978

Occupation group	1976			1977			1978		
	Employed (000)	Unemployed		Employed (000)	Unemployed		Employed (000)	Unemployed	
		Number (000)	Rate (percent)		Number (000)	Rate (percent)		Number (000)	Rate (percent)
Professional and technical	560	21	3.6	553	18	3.2	549	11	2.0
Managers and administrators, except farm	326	11	3.3	334	8	2.5	361	9	2.4
Sales workers	229	16	6.5	219	16	6.8	223	14	5.8
Clerical workers	608	52	7.9	621	48	7.1	663	30	4.3
Total white-collar	1,724	100	5.5	1,727	91	5.0	1,797	64	3.4
Craft workers	486	37	7.1	544	30	5.3	559	27	4.6
Operatives, except transport	509	71	12.3	564	57	9.2	605	57	8.6
Transport equipment operatives	135	16	10.8	153	13	7.7	154	13	7.6
Nonfarm laborers	157	32	17.0	182	31	14.4	174	25	12.4
Total blue-collar	1,287	157	10.9	1,442	130	8.3	1,493	121	7.5
Service workers	533	68	11.3	538	62	10.4	561	54	8.8
Farm workers	79	3	3.9	74	5	6.8	63	3	4.0
TOTAL	3,623	374	9.4	3,781	337	8.2	3,913	289	6.9

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1976, Report 504 (Washington, D.C.: 1977), Table 5; State of Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 3, and special release.

TABLE V-8. UNEMPLOYED PERSONS, BY DURATION OF UNEMPLOYMENT, IN MICHIGAN AND THE UNITED STATES: 1975 - 1978

	Michigan				United States			
	1975	1976	1977	1978	1975	1976	1977	1978
Thousands of persons	490	374	337	289	7,830	7,288	6,855	6,047
Percentage distribution by duration of unemployment:								
Less than 15 weeks	61.8	63.7	71.3	79.5	68.3	67.9	72.2	77.2
15-26 weeks	19.8	15.8	12.3	11.3	16.5	13.8	13.1	12.3
27-51 weeks	11.0	11.0	6.9	4.4	9.9	9.6	7.5	5.3
52 weeks or longer	7.4	9.5	9.5	4.7	5.3	8.8	7.3	5.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1975, Report 481 (Washington, D.C.: 1977), Table 5; Geographic Profile of Employment and Unemployment, 1976, Report 504 (Washington, D.C.: 1977), Table 7; State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 5; Employment and Earnings, vol. 24, no. 1 (Washington, D.C.: January 1976), Table 17; Employment and Earnings, vol. 26, no. 1 (Washington, D.C.: January 1978), Table 17; and special release.

TABLE V-9. UNEMPLOYED PERSONS, BY REASON FOR UNEMPLOYMENT, MICHIGAN AND THE UNITED STATES: 1976 - 1978

	Michigan			United States		
	1976	1977	1978	1976	1977	1978
Job losers:						
On lay off	85,000	n.a.	57,000	1,039,000	853,000	698,000
Others	90,000	n.a.	53,000	2,585,000	2,249,000	1,816,000
TOTAL	175,000	133,000	110,000	3,625,000	3,103,000	2,514,000
Job leavers	50,000	44,000	36,000	886,000	889,000	852,000
Reentrants	103,000	112,000	96,000	1,895,000	1,926,000	1,814,000
New entrants	46,000	48,000	47,000	882,000	938,000	867,000
TOTAL UNEMPLOYED	374,000	337,000	289,000	7,288,000	6,855,000	6,047,000

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1976, Report 504 (Washington, D.C.: 1977), Table 8; State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 6; Employment and Earnings, vol. 24, no. 1 (Washington, D.C.: January 1977), Table 11; Employment and Earnings, vol. 25, no. 1 (Washington, D.C.: January 1978), Table 11; and special release.

n.a.: not available.

TABLE V-10. UNEMPLOYMENT RATES IN MICHIGAN AND THE UNITED STATES BY MONTH: 1970-1979

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	August	Sep.	Oct.	Nov.	Dec.
						Michigan						
1970	5.4	5.8	6.0	6.1	5.8	6.3	8.2	7.3	6.7	7.3	7.7	7.6
1971	8.5	8.7	8.9	7.6	6.5	7.7	8.4	7.1	7.0	7.1	6.5	7.7
1972	7.9	8.0	8.2	8.0	7.7	8.0	8.2	6.4	6.6	5.0	5.4	4.8
1973	7.1	7.8	6.8	5.5	5.2	5.7	6.2	5.3	4.3	4.7	5.2	5.9
1974	5.8	7.3	8.4	7.2	6.7	7.0	7.5	7.0	7.1	6.6	8.5	9.9
1975	13.7	14.5	14.9	13.6	12.3	14.2	13.1	11.7	11.1	10.0	9.8	10.8
1976	10.3	10.7	10.6	10.0	9.3	9.9	9.6	9.3	8.4	7.5	8.4	8.4
1977	8.9	9.8	9.7	7.3	7.3	8.4	8.8	9.2	7.5	6.5	7.7	7.0
1978	8.1	7.2	7.2	6.6	6.6	7.0	7.3	8.0	5.8	5.5	6.6	6.7
1979	8.0	8.2	7.9	8.6	7.2	7.2						
						United States						
1970	4.2	4.7	4.6	4.3	4.1	5.6	5.3	5.0	5.2	5.1	5.5	5.6
1971	6.6	6.6	6.3	5.7	5.3	6.5	6.2	5.9	5.8	5.4	5.7	5.5
1972	6.4	6.4	6.1	5.5	5.1	6.2	5.8	5.5	5.4	5.1	4.9	4.7
1973	5.5	5.6	5.2	4.8	4.3	5.4	5.0	4.7	4.7	4.2	4.5	4.5
1974	5.6	5.7	5.3	4.8	4.6	5.8	5.6	5.3	5.7	5.5	6.2	6.7
1975	9.0	9.1	9.1	8.6	8.3	9.1	8.7	8.2	8.1	7.8	7.8	7.8
1976	8.8	8.7	8.1	7.4	6.7	8.0	7.8	7.6	7.4	7.2	7.4	7.4
1977	8.3	8.5	7.9	6.9	6.4	7.5	7.0	6.8	6.6	6.3	6.4	6.0
1978	7.0	6.9	6.6	5.8	5.5	6.2	6.3	5.8	5.7	5.4	5.5	5.6
1979	6.4	6.4	6.1	5.5	5.2	6.0						

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures show unemployment as a percentage of civilian labor force and are not seasonally adjusted.

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Alcona, Iosco						
1970	9,050	625	6.9	2,275	1,375	2,400
1971	9,325	725	7.8	2,425	1,050	2,575
1972	9,425	850	9.0	2,425	1,125	2,575
1973	9,275	950	10.2	2,375	1,125	2,625
1974	10,625	975	9.2	2,475	1,075	3,225
1975	11,250	1,675	14.9	2,550	1,050	3,275
1976	11,675	1,375	11.8	3,075	1,425	3,500
1977	13,075	1,525	11.7	2,475	1,250	3,475
1978	12,825	1,525	11.9	2,475	1,275	3,550
Alger - see Marquette, Alger for 1970-1974						
Alger						
1975	3,450	550	15.9	550	700	825
1976	3,750	525	14.0	575	750	900
1977	3,800	525	13.8	575	900	850
1978	3,800	450	11.8	600	900	850
Allegan						
1970	26,550	1,575	5.9	2,775	5,925	4,075
1971	26,800	2,025	7.6	3,125	5,725	4,050
1972	28,850	1,650	5.7	3,300	6,600	4,375
1973	30,675	1,625	5.3	3,375	7,375	4,650
1974	31,525	1,900	6.0	3,325	7,350	5,000
1975	30,725	3,500	11.4	3,550	6,650	5,025
1976	31,275	2,450	7.8	6,675	6,550	5,675
1977	31,025	2,175	7.0	3,625	7,000	6,250
1978	31,725	1,875	5.9	3,775	7,175	7,050
Alpena						
1970	11,250	1,350	12.0	1,750	2,800	3,275
1971	11,700	1,450	12.4	1,875	2,750	3,500
1972	12,475	1,625	13.0	2,075	2,600	3,875
1973	13,000	1,675	12.9	2,100	2,725	4,100
1974	13,675	1,825	13.3	2,150	3,025	4,375
1975	14,175	2,700	19.0	2,325	2,625	4,475
1976	14,450	2,325	16.1	4,575	2,700	4,900
1977	14,825	2,125	14.3	2,425	2,700	5,350
1978	15,300	1,950	12.7	2,350	2,975	5,825
Antrim						
1970	5,000	425	8.5	650	1,300	825
1971	4,975	350	7.0	675	1,125	1,025
1972	5,375	450	8.4	775	1,075	1,200
1973	6,000	450	7.5	800	1,425	1,325
1974	6,200	625	10.1	800	1,325	1,375
1975	6,225	950	15.3	900	1,125	1,375
1976	6,450	800	12.4	1,675	1,275	1,350
1977	6,825	725	10.6	900	1,300	1,400
1978	6,700	625	9.3	875	1,300	1,500

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Arenac						
1970	4,450	250	5.6	625	975	925
1971	4,875	275	5.6	650	1,250	975
1972	5,025	425	8.5	725	1,200	975
1973	4,950	375	7.6	725	1,100	1,075
1974	5,100	575	11.3	700	925	1,175
1975	6,275	1,125	17.9	725	850	1,200
1976	7,025	875	12.5	1,450	900	1,450
1977	7,700	825	10.7	875	975	1,500
1978	7,325	725	9.9	650	750	1,250
Baraga						
1970	2,675	250	9.3	700	725	450
1971	2,675	250	9.3	700	700	475
1972	2,750	275	10.0	700	725	525
1973	2,725	200	7.3	625	725	600
1974	2,800	250	8.9	625	725	600
1975	3,050	425	13.9	650	600	625
1976	3,200	475	14.8	1,150	575	700
1977	2,850	400	14.0	700	775	725
1978	2,875	350	12.2	750	775	750
Barry, Calhoun						
1970	76,400	4,500	5.9	10,300	25,700	25,200
1971	77,300	5,500	7.1	10,400	24,900	24,900
1972	78,300	5,200	6.6	10,900	25,400	26,000
1973	79,400	4,600	5.8	11,400	26,500	27,000
1974	79,700	5,600	7.0	11,000	26,000	26,900
1975	81,000	9,900	12.2	11,400	23,000	26,900
1976	81,200	8,000	9.9	16,600	23,600	28,000
1977	81,400	6,800	8.4	12,500	23,800	29,300
1978	81,900	5,400	6.6	12,500	24,200	30,100
Bay						
1970	46,500	3,700	8.0	4,400	10,500	15,000
1971	46,400	4,500	9.7	4,300	9,800	15,400
1972	46,800	4,300	9.2	4,500	9,600	16,400
1973	47,800	3,000	6.3	4,700	10,200	17,800
1974	48,400	3,900	8.1	4,700	9,900	18,100
1975	49,700	6,700	13.5	5,000	9,300	18,100
1976	50,400	4,900	9.7	9,500	10,500	18,600
1977	52,200	4,200	8.0	5,200	11,000	18,900
1978	54,100	3,400	6.3	5,500	11,500	18,700
Benzie						
1970	3,475	425	12.2	400	575	925
1971	3,600	350	9.7	425	550	1,025
1972	3,800	425	11.2	500	525	1,075
1973	3,775	425	11.3	550	475	1,150
1974	3,825	375	9.8	600	500	1,150
1975	3,950	550	13.9	650	500	1,100
1976	4,100	450	11.0	675	550	1,300
1977	4,125	475	11.5	675	550	1,425
1978	4,250	375	8.8	675	525	1,550

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Berrien						
1970	70,300	4,000	5.7	6,700	29,600	23,700
1971	72,000	4,900	6.8	6,800	28,300	25,300
1972	74,000	4,500	6.1	7,000	30,200	26,800
1973	75,500	4,500	6.0	7,100	31,500	27,600
1974	75,000	5,500	7.3	7,700	29,200	28,300
1975	74,400	11,600	15.6	8,300	25,400	25,900
1976	73,300	8,400	11.5	8,500	25,500	28,200
1977	75,900	6,900	9.1	8,800	26,500	30,200
1978	74,200	6,200	8.4	8,500	26,400	30,200
Branch						
1970	16,650	1,150	6.9	3,100	3,750	3,175
1971	18,025	1,225	6.8	3,200	3,650	3,400
1972	17,350	1,325	7.6	3,350	3,900	3,600
1973	19,125	1,050	5.5	3,450	4,375	3,975
1974	19,275	1,400	7.3	3,500	4,100	4,075
1975	19,875	3,025	15.2	3,475	3,450	3,900
1976	20,325	2,000	9.8	3,750	4,150	4,475
1977	19,925	1,725	8.7	3,725	4,750	4,875
1978	20,800	1,350	6.5	3,725	5,550	5,325
Calhoun - see Barry, Calhoun						
Cass						
1970	17,800	975	5.5	1,625	3,525	2,375
1971	17,450	1,275	7.3	1,650	3,300	2,400
1972	18,825	1,100	5.8	1,675	3,800	2,500
1973	20,725	1,050	5.1	1,725	4,325	2,850
1974	19,650	1,525	7.8	2,000	3,350	3,150
1975	19,075	2,700	14.2	2,125	2,975	3,125
1976	20,550	1,775	8.6	2,125	3,900	3,525
1977	23,050	1,700	7.4	2,325	4,175	3,675
1978	24,825	1,425	5.7	2,225	4,725	3,750
Charlevoix						
1970	6,700	675	10.1	650	2,325	1,575
1971	6,600	675	10.2	675	2,050	1,625
1972	6,775	650	9.6	775	1,975	1,775
1973	7,125	650	9.1	800	2,175	1,900
1974	7,925	975	12.3	925	2,275	2,050
1975	8,525	1,425	16.7	1,025	1,975	2,025
1976	8,900	1,100	12.4	1,025	2,275	2,100
1977	8,875	1,050	11.8	1,025	2,600	2,450
1978	9,425	950	10.1	1,075	2,750	2,450
Cheybogan						
1970	6,825	1,325	19.4	600	1,175	1,675
1971	7,100	1,075	15.1	650	1,150	1,950
1972	7,450	1,200	16.1	700	1,175	2,050
1973	7,650	1,300	17.0	750	1,200	2,075
1974	8,650	1,525	17.6	800	1,150	2,550
1975	9,100	2,100	23.1	850	1,000	2,650
1976	8,825	1,800	20.4	900	1,050	2,850
1977	9,300	1,900	20.4	900	1,100	3,050
1978	9,350	1,875	20.1	950	1,200	2,900

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Chippewa						
1970	11,150	1,525	15.0	3,425	125	3,550
1971	11,000	1,900	17.3	3,925	200	3,625
1972	10,800	1,625	15.0	3,875	200	3,650
1973	10,675	1,825	17.1	3,800	250	3,600
1974	10,975	1,825	16.6	4,000	250	3,625
1975	11,225	2,350	20.9	4,400	250	3,650
1976	11,750	2,475	21.1	4,325	425	3,950
1977	12,675	2,325	18.3	4,275	475	4,150
1978	12,525	2,350	18.8	3,850	450	4,650
Clare						
1970	6,000	575	9.6	1,050	825	1,350
1971	6,750	900	13.3	1,075	700	1,675
1972	6,775	1,050	15.5	1,125	500	1,850
1973	7,325	850	11.6	1,175	825	1,900
1974	7,950	1,025	12.9	1,200	825	2,100
1975	8,125	1,500	18.5	1,275	700	2,050
1976	8,075	1,200	14.9	1,275	900	2,200
1977	9,550	1,250	13.1	1,250	975	2,325
1978	9,750	1,000	10.3	1,300	1,100	2,425
Clinton, Eaton, Ingham, Ionia						
1970	177,600	11,500	6.5	50,300	36,700	58,100
1971	183,500	11,800	6.4	50,800	39,600	60,700
1972	190,500	11,800	6.2	52,500	39,700	66,700
1973	194,100	9,700	5.0	53,900	43,100	68,800
1974	197,300	15,200	7.7	57,400	37,700	69,500
1975	200,300	23,900	11.9	59,500	35,000	69,800
1976	208,100	18,000	8.6	60,800	37,800	71,300
1977	221,500	17,000	7.7	63,500	42,000	74,600
1978	227,500	14,400	6.3	65,200	44,500	79,800
Crawford						
1970	2,650	275	10.4	475	550	725
1971	2,875	275	9.6	500	500	875
1972	3,100	425	13.7	525	475	925
1973	3,275	425	13.0	550	600	950
1974	4,025	425	10.6	575	900	1,175
1975	4,175	675	16.2	625	675	1,200
1976	4,125	500	12.1	750	600	1,325
1977	4,500	500	11.1	650	600	1,375
1978	4,100	475	11.6	625	550	1,375
Delta						
1970	13,475	1,150	8.5	1,675	3,400	4,700
1971	15,075	1,450	9.6	2,600	2,850	6,175
1972	14,225	1,450	10.2	1,725	2,925	5,425
1973	13.800	1,100	8.0	1,775	3,100	5,325
1974	14,175	1,150	8.1	1,800	3,250	5,575
1975	15,425	1,900	12.3	1,900	3,000	5,625
1976	15,900	1,575	9.9	1,925	3,550	5,425
1977	16,650	1,800	10.8	2,200	3,475	5,325
1978	16,450	1,625	9.9	2,375	3,325	5,125

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Dickinson						
1970	8,900	575	6.5	1,650	1,425	4,125
1971	9,175	575	6.3	1,650	1,425	4,325
1972	9,525	575	6.0	1,750	1,625	4,300
1973	9,825	575	5.9	1,825	1,700	4,550
1974	10,075	600	6.0	1,850	1,900	4,575
1975	10,075	1,000	9.9	1,900	1,900	4,575
1976	10,275	925	9.0	1,925	1,950	4,800
1977	11,400	875	7.7	2,000	2,125	5,050
1978	11,475	850	7.4	2,100	2,250	5,400
Eaton - see Clinton, Eaton, Ingham, Ionia						
Emmet						
1970	7,700	825	10.7	950	1,000	3,675
1971	8,250	875	10.6	950	1,075	3,975
1972	8,875	800	9.0	1,050	1,000	3,675
1973	9,425	800	8.5	1,075	1,250	4,875
1974	10,275	1,025	10.0	1,125	1,350	5,225
1975	11,000	1,650	15.0	1,250	1,075	5,275
1976	11,675	1,300	11.1	1,375	1,075	5,625
1977	13,275	1,275	9.6	1,350	1,125	5,975
1978	13,500	1,150	8.5	1,300	1,325	6,100
Genesee, Shiawassee						
1970	197,300	16,400	8.3	22,600	71,900	69,300
1971	193,700	14,700	7.6	22,300	79,100	69,200
1972	196,100	14,700	7.5	23,900	78,100	71,500
1973	201,100	12,400	6.2	24,500	84,600	74,000
1974	202,400	23,000	11.4	24,700	72,600	72,800
1975	209,800	32,300	15.4	26,900	68,200	71,800
1976	208,800	20,400	9.8	28,100	76,900	76,600
1977	217,200	18,700	8.6	28,000	83,100	80,800
1978	225,500	17,200	7.6	28,100	86,600	85,400
Gladwin - see Midland, Gladwin						
Gogebic						
1970	7,450	500	6.7	1,300	1,075	2,175
1971	7,575	625	8.3	1,325	1,025	2,225
1972	7,700	575	7.5	1,350	1,050	2,225
1973	7,775	475	6.1	1,350	1,200	2,300
1974	8,125	500	6.2	1,375	1,200	2,475
1975	7,975	725	9.1	1,500	1,050	2,525
1976	8,475	1,075	12.7	1,500	1,200	2,325
1977	8,525	1,025	12.0	1,525	975	2,500
1978	8,500	800	9.4	1,525	950	2,725
Grand Traverse, Kalkaska, Leelanau						
1970	22,400	1,850	8.3	3,500	3,375	9,100
1971	23,900	2,250	9.4	3,700	3,300	9,700
1972	23,500	2,000	8.5	4,025	2,975	10,600
1973	24,825	1,825	7.4	4,200	3,350	11,900
1974	28,775	2,300	8.0	4,500	3,650	12,700
1975	31,450	3,975	12.6	4,775	3,625	13,025
1976	32,150	3,800	11.8	4,675	3,750	14,600
1977	34,800	3,450	9.9	4,975	3,925	16,300
1978	37,775	2,900	7.7	5,325	4,325	18,000

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Gratiot						
1970	16,500	1,975	12.0	1,525	3,300	5,575
1971	16,275	2,375	14.6	1,525	3,150	5,450
1972	16,525	1,800	10.9	1,650	3,500	5,700
1973	16,650	1,625	9.8	1,600	3,725	5,850
1974	16,825	2,423	14.4	1,650	3,350	5,750
1975	17,375	3,725	21.4	1,775	2,650	5,600
1976	17,650	3,125	17.7	1,775	3,225	6,000
1977	18,950	2,775	14.6	1,750	3,225	6,175
1978	18,575	2,225	12.0	1,825	3,125	6,100
Hillsdale						
1970	15,650	1,025	6.5	1,800	3,525	3,050
1971	15,900	1,175	7.4	1,825	3,450	3,125
1972	17,350	1,050	6.1	1,925	4,075	3,300
1973	18,400	800	4.3	1,950	4,875	3,475
1974	18,775	1,250	6.7	2,025	4,750	3,575
1975	19,125	3,250	17.0	2,100	3,575	3,675
1976	19,675	1,850	9.4	2,275	4,200	4,475
1977	20,575	1,600	7.8	2,375	4,225	4,275
1978	21,625	1,125	5.2	2,225	4,700	4,450
Houghton, Keewenaw						
1970	12,025	1,350	11.2	2,925	900	3,925
1971	12,550	1,600	12.7	2,975	850	4,100
1972	12,225	1,375	11.2	3,125	850	3,975
1973	12,350	1,300	10.5	3,200	875	4,100
1974	12,725	1,175	9.2	3,350	900	4,325
1975	13,550	1,700	12.5	3,575	775	4,675
1976	14,325	1,950	13.6	3,525	825	4,800
1977	13,725	1,900	13.8	3,950	825	5,000
1978	13,700	1,725	12.6	4,225	750	5,100
Huron						
1970	13,525	1,700	12.6	1,725	2,225	3,825
1971	13,700	1,650	12.0	1,750	2,200	3,900
1972	14,375	1,950	13.6	1,725	2,600	3,925
1973	14,250	1,275	8.9	1,750	3,425	3,650
1974	13,975	1,825	13.1	1,650	3,025	3,550
1975	14,975	3,000	20.0	1,750	2,225	3,675
1976	14,975	2,000	13.4	1,675	2,250	4,125
1977	13,700	1,875	13.7	1,650	1,850	4,325
1978	13,675	1,550	11.3	1,800	2,850	4,175
Ingham - see Clinton, Eaton, Ingham, Ionia						
Ionia - see Clinton, Eaton, Ingham, Ionia						
Iosco - see Alcona, Iosco						
Iron						
1970	5,000	675	13.5	900	350	1,450
1971	4,950	575	11.6	925	325	1,500
1972	4,850	525	10.8	975	250	1,500
1973	5,025	500	10.0	950	275	1,625
1974	5,400	500	9.3	975	525	1,600
1975	6,125	775	12.7	1,050	575	1,625
1976	6,125	800	13.1	1,050	575	1,700
1977	6,050	650	10.7	1,075	575	1,725
1978	6,200	575	9.3	1,000	500	1,700

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Isabella						
1970	16,975	950	5.6	4,900	800	4,600
1971	17,400	1,175	6.8	5,150	700	4,625
1972	17,875	1,200	6.7	5,100	750	4,925
1973	18,950	1,300	6.9	5,475	925	5,175
1974	20,400	1,650	8.1	5,650	1,000	5,600
1975	21,250	2,125	10.0	6,100	825	5,625
1976	22,050	1,725	7.8	6,350	1,050	6,775
1977	24,275	1,750	7.2	6,575	1,150	6,950
1978	24,850	1,450	5.8	6,500	1,225	7,500
Jackson						
1970	58,300	3,500	6.0	7,600	17,900	21,200
1971	58,200	4,200	7.2	7,700	16,300	21,700
1972	61,500	3,300	5.4	7,900	17,700	24,100
1973	64,000	2,800	4.4	8,300	19,300	25,400
1974	65,800	3,800	5.8	8,100	18,300	25,700
1975	65,900	7,800	11.8	8,100	16,100	25,200
1976	64,900	6,500	10.0	8,600	14,700	26,700
1977	65,300	5,500	8.4	8,600	15,600	27,800
1978	65,500	3,800	5.8	8,500	16,400	29,000
Kalamazoo, Van Buren						
1970	107,800	5,900	5.5	17,400	34,300	35,300
1971	107,700	7,100	6.6	17,500	32,100	36,200
1972	110,400	6,300	5.7	17,500	33,600	38,200
1973	114,400	5,600	4.9	17,700	35,700	41,000
1974	171,500	6,900	5.9	19,000	35,200	43,200
1975	120,600	12,400	10.3	19,700	31,800	45,100
1976	124,800	9,500	7.6	19,900	32,700	46,900
1977	129,700	8,400	6.5	19,900	33,800	49,600
1978	131,500	7,500	5.7	19,900	34,400	51,800
Kalkaska - see Grand Traverse, Kalkaska, Leelanau						
Kent, Ottawa						
1970	228,600	14,900	6.5	20,000	72,500	99,300
1971	231,600	17,100	7.4	20,400	70,700	100,800
1972	241,200	15,200	6.3	21,700	76,400	105,800
1973	252,400	13,700	5.4	24,000	83,100	112,900
1974	257,300	16,500	6.4	26,500	79,800	116,200
1975	259,900	29,400	11.3	28,300	70,300	117,200
1976	262,000	20,700	7.9	29,000	77,100	121,800
1977	281,400	17,600	6.3	30,300	83,800	126,600
1978	289,000	14,500	5.0	31,000	88,300	136,300
Keweenaw - see Houghton, Keweenaw						
Lake						
1970	2,075	150	7.2	350	75	250
1971	2,375	175	7.4	350	100	300
1972	2,350	175	7.4	350	100	325
1973	2,625	175	6.7	375	125	350
1974	2,525	200	7.9	400	75	375
1975	2,700	400	14.8	425	50	400
1976	2,600	250	9.6	425	75	450
1977	2,725	250	9.2	450	75	450
1978	2,675	200	7.5	425	100	450

TABLE V-7. OCCUPATIONAL DISTRIBUTION OF EMPLOYMENT IN MICHIGAN, BY SEX AND RACE: 1977 AND 1978

	Percentage of total employment									
	1977					1978				
	Men	Women	White (both sexes)	Black/other (both sexes)	Total	Men	Women	White (both sexes	Black/other (both sexes)	Total
White-collar workers										
Professional and technical	14.4	15.0	15.0	11.3	14.6	13.8	14.3	14.4	10.9	14.0
Managers and administrators, except farm	11.6	4.5	9.3	4.7	8.8	12.0	5.1	9.8	4.7	9.2
Sales workers	5.7	5.9	6.1	2.9	5.8	5.1	6.7	6.1	2.8	5.7
Clinical workers	5.2	34.4	16.7	14.4	16.4	5.4	34.4	16.9	17.2	16.9
TOTAL	36.8	59.8	47.0	33.3	45.7	36.3	60.5	47.2	35.6	45.9
Blue-collar workers										
Craft and kindred workers	22.4	1.5	14.8	10.1	14.4	22.7	1.5	14.9	9.0	14.3
Operatives, except transport	17.5	10.8	13.9	24.2	14.9	18.5	10.9	14.4	24.0	15.5
Transport equip. operatives	6.0	(a)	4.0	4.1	4.0	6.0	.8	3.9	4.3	3.9
Nonfarm laborers	6.8	1.6	4.7	5.9	4.8	6.4	1.5	4.3	5.4	4.4
TOTAL	52.7	14.9	37.5	44.3	38.1	53.6	14.7	37.6	42.7	38.1
Service workers	8.0	24.2	13.4	22.3	4.2	8.0	23.9	13.4	21.7	14.3
Farm workers	2.5	1.1	2.2	(a)	2.0	2.1	1.0	1.8	(a)	1.6
TOTAL EMPLOYED	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of Labor Statistics, State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 6; and special release.

a. Less than one percent.

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970–1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Lapeer - see Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne						
Leelanau - see Grand Traverse, Kalkaska, Leelanau						
Lenawee						
1970	34,750	2,425	7.0	3,625	13,300	8,300
1971	35,600	3,275	9.2	3,675	12,725	8,675
1972	36,475	2,875	7.9	3,875	13,425	9,125
1973	36,950	2,300	6.2	3,875	14,525	9,450
1974	37,875	3,700	9.8	4,025	13,050	10,050
1975	38,525	6,600	17.1	4,050	10,325	9,700
1976	38,175	4,050	10.6	4,225	11,425	10,525
1977	37,225	3,650	9.8	4,275	12,025	11,150
1978	37,600	2,450	6.5	4,450	12,650	11,650
Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne[f]						
1970	1,804.0	115.5	6.4	223.1	567.8	759.2
1971	1,799.4	134.6	7.5	226.6	547.4	756.7
1972	1,837.9	126.5	6.9	229.8	562.0	788.4
1973	1,879.9	102.3	5.4	230.3	610.0	822.6
1974	1,909.7	129.1	6.8	243.5	581.6	834.0
1975	1,883.2	219.6	11.7	250.8	505.5	811.0
1976	1,936.9	172.3	8.9	250.7	544.0	844.6
1977	1,970.8	155.2	7.9	257.0	583.8	891.3
1978						
Luce						
1970	2,500	275	11.0	1,150	250	475
1971	2,925	600	20.5	1,225	250	475
1972	2,750	425	15.5	1,200	250	500
1973	2,750	425	15.5	1,200	200	575
1974	2,850	450	15.8	1,175	275	600
1975	3,150	725	23.0	1,150	200	625
1976	3,300	775	23.5	1,225	225	625
1977	3,475	825	23.7	1,850	200	700
1978	3,325	725	21.8	1,200	150	625
Mackinac						
1970	4,550	750	16.5	500	75	1,325
1971	5,100	750	14.7	675	100	1,325
1972	5,500	600	10.9	825	100	1,450
1973	5,675	525	9.3	825	150	1,550
1974	5,975	525	8.8	875	200	1,650
1975	5,625	700	12.4	925	150	1,675
1976	5,925	625	10.5	900	200	1,625
1977	6,250	800	12.8	950	175	1,800
1978	6,500	750	11.5	900	300	1,625
Macomb - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Manistee						
1970	8,100	900	11.1	900	2,450	2,150
1971	8,300	900	10.8	925	2,450	2,150
1972	8,400	1,125	13.4	975	2,350	2,175
1973	8,575	1,125	13.1	1,000	2,450	2,225
1974	8,600	1,175	13.7	1,100	2,500	2,100
1975	9,525	1,875	19.7	1,200	2,550	2,200
1976	9,250	1,450	15.7	1,200	2,600	2,450
1977	9,525	1,250	13.1	1,225	2,750	2,625
1978	9,600	1,100	11.5	1,250	2,800	2,825

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Marquette						
1975	27,350	2,300	8.4	6,925	1,200	14,525
1976	32,950	2,750	8.3	11,825	1,900	17,175
1977	32,225	2,775	8.6	7,825	925	16,550
1978	33,500	2,500	7.5	7,775	875	18,400
Marquette, Alger						
1970	24,700	1,775	7.2	7,500	2,100	11,400
1971	25,050	2,150	8.6	8,050	1,925	11,150
1972	25,275	2,075	8.2	8,200	1,925	11,400
1973	26,700	1,825	6.8	7,900	1,975	13,200
1974	29,325	2,125	7.2	7,750	1,975	15,125
1975	30,800	2,850	9.3	7,475	1,900	15,350
1976	36,700	3,275	8.9	12,400	2,650	18,075
1977	36,025	3,300	9.2	8,400	1,825	17,400
1978	37,300	2,950	7.9	8,375	1,775	19,250
Mason						
1970	9,275	575	6.2	1,025	2,300	2,925
1971	9,825	850	8.7	1,075	2,175	3,175
1972	10,150	825	8.1	1,100	2,125	3,500
1973	10,575	875	8.3	1,175	2,400	3,500
1974	10,850	800	7.4	1,300	2,675	3,300
1975	11,225	1,450	12.9	1,375	2,350	3,375
1976	11,375	1,125	9.9	1,450	2,400	3,500
1977	12,375	1,150	9.3	1,500	2,475	3,800
1978	11,975	925	7.7	1,450	2,500	3,850
Mecosta						
1970	10,550	800	7.6	3,250	2,000	1,800
1971	10,800	1,050	9.7	3,450	1,650	1,900
1972	10,900	800	7.3	3,500	1,700	1,975
1973	10,800	875	8.1	3,600	1,550	2,025
1974	11,500	750	6.5	3,900	1,600	2,275
1975	12,425	1,375	11.1	3,950	1,575	2,300
1976	13,050	1,200	9.2	4,075	1,600	2,825
1977	13,250	1,150	8.7	4,325	1,675	2,925
1978	13,625	925	6.8	4,200	1,875	3,100
Menominee						
1970	9,200	500	5.4	1,025	2,675	2,100
1971	9,100	600	6.6	1,025	2,525	2,075
1972	9,400	525	5.6	1,050	2,725	2,150
1973	9,625	500	5.2	1,100	2,850	2,225
1974	9,900	475	4.8	1,125	3,025	2,225
1975	10,225	900	8.8	1,350	2,675	2,225
1976	10,525	725	6.9	1,400	2,875	2,425
1977	10,500	725	6.9	1,425	2,925	2,475
1978	10,700	775	7.2	1,675	2,950	2,725
Midland, Gladwin						
1970	28,600	1,250	4.4	3,600	14,325	9,500
1971	27,700	1,775	6.4	3,600	13,225	9,100
1972	27,775	1,875	6.8	3,675	13,075	9,325
1973	27,150	1,800	6.6	3,650	13,275	9,075
1974	28,600	3,150	11.0	3,525	11,400	9,850

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Midland, Gladwin (cont.)						
1975	29,925	4,150	13.9	3,750	13,525	10,400
1976	31,275	3,575	11.4	3,900	13,925	12,100
1977	35,675	3,200	9.0	4,100	13,600	14,550
1978	36,650	2,925	8.0	4,100	13,675	16,125
Missaukee, Osceola, Wexford						
1970	17,100	1,650	9.6	2,225	4,375	4,200
1971	17,375	1,875	10.8	2,350	3,650	4,750
1972	18,075	1,850	10.2	2,600	4,000	4,850
1973	19,625	1,775	9.0	2,650	5,175	5,000
1974	20,675	2,275	11.0	2,725	5,675	4,925
1975	20,325	3,500	17.2	2,825	4,650	4,650
1976	20,625	3,200	15.5	4,150	7,100	6,425
1977	21,700	2,975	13.7	3,025	4,900	5,625
1978	21,375	2,300	10.8	3,050	5,000	5,800
Missaukee, Wexford						
1975	12,900	2,775	21.5	1,725	2,475	3,650
1976	13,100	2,375	18.1	2,975	5,050	5,350
1977	14,375	2,175	15.1	1,825	3,050	4,475
1978	14,150	1,725	12.2	1,850	3,100	4,650
Monroe[g]						
1970	46,350	2,650	5.7			
1971	46,075	2,800	6.1			
1972	47,000	2,250	4.8			
1973	48,350	2,100	4.3			
1974	49,300	2,800	5.7			
1975	49,175	4,625	9.4			
1976	50,300	3,575	7.1			
1977	51,350	3,525	6.9			
1978	52,450	3,200	6.1			
Montcalm						
1970	15,650	1,025	6.5	1,825	5,850	3,700
1971	16,300	1,375	8.4	1,850	5,800	3,975
1972	15,075	1,400	9.3	2,025	4,775	4,325
1973	15,650	1,175	7.5	2,075	5,025	4,475
1974	17,200	1,350	7.8	2,000	5,575	4,525
1975	18,825	3,400	18.1	2,225	4,375	4,625
1976	19,300	3,450	17.9	2,275	4,800	5,025
1977	19,350	3,075	15.9	2,325	4,500	5,350
1978	20,150	2,675	13.3	2,325	5,000	5,575
Montmorency						
1970	1,725	150	8.7	325	325	325
1971	2,025	250	12.2	300	375	225
1972	2,350	325	13.8	350	475	400
1973	2,675	400	15.0	350	600	450
1974	2,850	500	17.5	350	600	450
1975	2,725	550	20.2	375	475	475
1976	2,725	300	11.0	375	600	525
1977	2,875	275	9.6	375	675	600
1978	2,950	275	9.3	375	700	700

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Muskegon, Oceana						
1970	69,700	5,900	8.5	7,800	25,100	22,000
1971	69,100	6,600	9.6	8,200	21,900	22,200
1972	69,900	6,300	9.0	8,200	22,800	23,200
1973	69,600	5,200	7.5	8,400	23,300	24,100
1974	71,800	5,600	7.8	9,100	23,900	24,800
1975	73,000	10,800	14.8	10,100	21,200	24,600
1976	75,300	7,500	10.0	10,300	21,800	25,900
1977	75,900	6,900	9.1	10,500	22,100	26,600
1978	76,700	6,300	8.2	10,600	22,000	27,800
Newaygo						
1970	10,550	800	7.6	1,425	1,700	1,925
1971	11,050	775	8.1	1,500	1,750	1,975
1972	11,025	975	8.8	1,475	1,700	2,025
1973	11,275	825	7.3	1,475	1,800	2,200
1974	11,500	925	8.0	1,525	1,800	2,250
1975	12,225	1,800	14.7	1,625	1,775	2,350
1976	12,475	1,475	11.8	1,700	1,875	2,500
1977	13,050	1,500	11.5	1,725	1,800	2,525
1978	12,575	1,325	10.5	1,650	1,900	2,700
Oakland - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Oceana - see Muskegon, Oceana						
Ogemaw						
1970	4,500	700	15.6	575	450	1,075
1971	5,200	1,075	20.7	600	500	1,175
1972	5,000	600	12.0	650	550	1,275
1973	5,500	400	7.3	675	775	1,475
1974	5,600	575	10.3	700	800	1,500
1975	5,850	1,050	17.9	750	675	1,425
1976	6,175	750	12.1	775	825	1,725
1977	7,300	850	11.6	725	825	1,775
1978	7,150	850	11.9	825	800	1,875
Ontonagon						
1970	3,850	250	6.5	750	450	3,100
1971	4,050	300	7.4	750	425	2,950
1972	3,950	300	8.9	750	475	3,275
1973	4,100	275	6.7	750	450	3,500
1974	4,200	275	6.5	750	475	3,400
1975	4,200	425	10.1	775	500	3,425
1976	3,725	825	22.1	750	375	2,275
1977	3,475	675	19.4	750	425	2,050
1978	3,275	550	16.8	850	425	2,000
Osceola - see Missaukee, Osceola, Wexford for 1970-1974						
Osceola						
1975	7,425	725	9.8	1,100	2,175	1,000
1976	7,525	825	11.0	1,175	2,050	1,075
1977	7,325	800	10.9	1,200	1,850	1,150
1978	7,225	575	8.0	1,200	1,900	1,150

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Oscoda						
1970	1,575	125	7.9	275	150	350
1971	1,675	150	9.0	275	150	400
1972	1,825	225	12.3	300	175	375
1973	1,850	250	13.5	325	175	350
1974	2,025	350	17.3	325	225	300
1975	2,275	575	25.3	300	200	350
1976	2,400	425	17.7	350	325	425
1977	2,725	425	15.6	325	325	400
1978	2,500	375	15.0	325	375	450
Otsego						
1970	4,125	350	8.5	825	850	1,425
1971	4,525	400	8.8	875	775	1,675
1972	4,925	375	7.6	900	775	1,850
1973	5,000	400	8.0	925	925	2,025
1974	5,350	550	10.3	950	925	2,050
1975	5,475	800	14.6	950	675	2,125
1976	5,725	650	11.4	1,000	850	2,450
1977	6,950	625	9.0	1,050	925	2,675
1978	7,425	575	7.7	1,075	975	3,150
Ottawa - see Kent, Ottawa						
Presque Isle						
1970	4,100	275	6.7	650	150	1,900
1971	4,300	225	5.2	625	150	2,125
1972	4,325	300	6.9	725	150	2,025
1973	4,300	350	8.1	750	150	1,950
1974	4,250	325	7.6	750	150	1,950
1975	4,325	525	12.1	825	150	1,850
1976	4,300	450	10.5	850	200	1,950
1977	4,550	475	10.4	825	225	2,025
1978	4,375	500	11.4	825	200	2,125
Roscommon						
1970	3,625	125	3.4	750	375	1,400
1971	3,750	225	6.0	750	375	1,375
1972	4,000	375	9.4	775	375	1,450
1973	4,125	375	9.1	850	400	1,500
1974	4,225	425	10.1	875	450	1,500
1975	4,350	650	14.9	950	425	1,550
1976	4,850	775	16.0	975	550	1,675
1977	5,575	675	12.1	1,000	475	1,850
1978	5,775	650	11.3	1,075	475	1,925
Saginaw						
1970	83,600	4,400	5.3	9,000	29,100	32,700
1971	88,400	5,300	6.0	9,100	32,900	34,500
1972	89,900	4,800	5.4	9,300	33,100	36,000
1973	91,000	4,500	4.9	9,500	35,000	37,000
1974	91,600	6,300	6.9	10,200	32,600	37,700
1975	91,500	10,500	11.5	11,000	29,000	37,000
1976	97,400	8,600	8.8	11,200	32,300	38,800
1977	99,700	6,800	6.8	11,100	34,400	40,500
1978	103,900	5,600	5.4	11,800	36,400	41,900

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
St. Clair - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
St. Joseph						
1970	20,325	1,000	4.9	2,625	8,950	4,250
1971	20,950	1,150	5.5	2,650	8,925	4,575
1972	20,925	1,100	5.3	2,675	8,975	4,675
1973	21,650	1,075	5.0	2,675	9,375	5,025
1974	23,100	1,950	8.4	2,650	9,425	5,400
1975	22,125	3,300	14.9	2,875	8,025	5,075
1976	21,925	2,050	9.4	2,950	8,550	5,475
1977	22,875	1,850	8.1	3,025	9,100	6,000
1978	22,925	1,725	7.5	3,025	9,750	6,025
Sanilac						
1970	14,200	1,275	9.0	1,625	3,475	1,975
1971	15,300	1,975	12.9	1,550	3,600	2,075
1972	16,025	2,075	12.9	1,575	3,775	2,300
1973	17,000	1,875	11.0	1,800	4,200	2,600
1974	15,700	1,625	10.4	1,775	3,500	2,825
1975	15,350	2,025	13.2	1,900	2,900	2,775
1976	15,600	1,350	8.7	1,925	2,925	2,900
1977	16,300	1,400	8.6	1,900	3,525	3,075
1978	16,000	1,350	8.4	1,975	3,750	3,150
Schoolcraft						
1970	3,025	325	11.6	600	325	1,150
1971	3,075	350	11.4	625	325	1,150
1972	3,025	375	12.4	600	325	1,125
1973	2,925	300	10.3	550	350	1,175
1974	2,925	325	11.1	550	350	1,150
1975	3,200	500	15.6	550	300	1,200
1976	3,325	425	12.8	550	325	1,275
1977	3,450	450	13.0	575	375	1,300
1978	3,550	475	13.4	700	350	1,275
Shiawassee - see Genesee, Shiawassee						
Tuscola						
1970	18,525	1,475	8.0	3,475	2,450	3,200
1971	17,650	1,500	8.5	3,400	2,025	3,200
1972	18,625	1,650	8.9	3,450	2,325	3,350
1973	19,575	1,200	6.1	3,425	2,700	3,650
1974	21,025	2,075	9.9	3,350	2,600	4,075
1975	22,350	3,875	17.3	3,450	2,000	4,175
1976	22,525	2,500	11.1	3,550	2,525	4,675
1977	23,025	2,250	9.8	3,525	2,875	4,975
1978	23,650	1,975	8.4	3,650	3,050	5,275
Van Buren - see Kalamazoo, Van Buren						
Washtenaw						
1970	104,800	5,600	5.3	38,700	33,000	31,000
1971	106,400	7,000	6.6	37,500	35,400	31,000
1972	107,600	5,300	4.9	37,500	36,500	32,900
1973	115,400	5,200	4.5	38,500	39,300	38,300
1974	117,000	7,600	6.5	39,600	35,600	41,100
1975	119,200	14,900	12.5	40,300	31,800	39,400
1976	124,900	10,300	8.2	41,400	36,800	41,200
1977	131,300	8,500	6.5	41,700	40,800	44,300
1978	134,800	7,300	5.4	41,400	43,900	49,100

TABLE V-11. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1978 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[f]	Rate[c]	Government[d]	Manufacturing	Other[e]
Wayne - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Wexford - see Missaukee, Osceola, Wexford						
Upper Peninsula						
1970	107,500	9,900	9.2	23,500	13,500	43,600
1971	112,100	11,500	10.3	24,100	12,900	42,500
1972	112,100	10,800	9.6	24,900	13,600	44,300
1973	114,000	9,800	8.6	24,600	14,600	47,800
1974	119,500	10,200	8.5	26,100	15,500	49,900
1975	124,600	15,000	12.0	28,200	14,300	50,900
1976	133,500	15,900	11.9	28,400	15,000	49,100
1977	135,000	15,700	11.6	29,700	15,200	50,400
1978	136,300	14,500	10.6	29,400	15,200	53,500
Michigan[h]						
1970	3,596	241	6.7	506.5	1,080.1	1,416.8
1971	3,621	277	7.6	509.4	1,057.7	1,428.4
1972	3,705	260	7.0	526.6	1,094.4	1,493.9
1973	3,808	221	5.9	534.3	1,177.2	1,570.8
1974	3,883	288	7.4	562.5	1,114.0	1,601.7
1975	3,901	487	12.5	583.1	983.7	1,569.3
1976	4,000	374	9.4	593.7	1,058.9	1,578.6
1977	4,124	337	8.2	596.7	1,120.2	1,717.8
1978	4,202	289	6.9	617.7	1,153.3	1,797.8

SOURCE: Michigan Employment Security Commission, special release.

a. Labor force includes persons involved in labor disputes. Employment and unemployment figures are on the basis of place of residence; wage and salary figures by place of work.

b. By place of work as opposed to place of residence.

c. Unemployment as a percentage of civilian labor force. Civilian labor force data are developed on the basis of questions asked at a sample of households, whereas the number of nonfarm wage and salary jobs is estimated by querying selected employers. The difference between the two stems largely from nonfarm self-employment (lawyers, dentists, physicians, and other professionals in private practice; domestic workers; "mom and pop" grocery stores, restaurants, and motels; and so forth), agricultural employment (both owners and their employees), workers involved in labor disputes who otherwise would be employed, multiple jobholding on the part of some employed persons, and sampling differences. Also, a worker might be employed in a factory or office in one state, and counted there in the employer survey, but live in another state, and be counted there in the household survey.

d. Federal, state and local. Includes public school employees and faculty and others employed full and part time at publicly owned universities.

e. Construction, transportation, communication, public utilities, wholesale trade, retail trade, finance, insurance, real estate, services, and mining.

f. Totals in thousands.

g. Monroe is part of the Toledo, Ohio, labor market area. Separate data for place of work are not compiled.

h. All 83 counties, including Monroe, totals are in thousands.

TABLE V-12. RATIO OF PERSONS NOT IN THE LABOR FORCE TO LABOR FORCE (NONWORKER-WORKER RATIO): CENSUS 1960 AND 1970

County	Ratio 1960	Ratio 1970	County	Ratio 1960	Ratio 1970
Alcona	1.84	2.34	Lake	2.18	2.02
Alger	2.01	1.83	Lapeer	2.00	1.85
Allegan	1.76	1.57	Leelanau	1.81	1.67
Alpena	1.84	1.88	Lenawee	1.75	1.45
Antrim	1.90	1.83	Livingston	1.73	1.61
Arenac	1.85	1.83	Luce	2.53	2.03
Baraga	2.19	2.08	Mackinac	1.94	2.09
Barry	1.65	1.59	Macomb	1.77	1.55
Bay	1.72	1.65	Manistee	1.67	1.64
Benzie	1.78	1.64	Marquette	1.96	1.63
Berrien	1.51	1.41	Mason	1.78	1.57
Branch	1.66	1.63	Mecosta	1.88	1.67
Calhoun	1.52	1.40	Menominee	1.89	1.79
Cass	1.72	1.47	Midland	2.01	1.68
Charlevoix	1.75	1.50	Missaukee	2.14	1.86
Cheboygan	2.06	1.84	Monroe	1.86	1.66
Chippewa	1.74	1.73	Montcalm	1.72	1.61
Clare	2.02	1.93	Montmorency	1.93	2.17
Clinton	1.75	1.58	Muskegon	1.72	1.59
Crawford	1.82	1.73	Newaygo	1.98	1.84
Delta	1.95	1.86	Oakland	1.71	1.46
Dickinson	1.83	1.86	Oceana	1.99	1.81
Eaton	1.62	1.48	Ogemaw	2.09	2.21
Emmet	1.74	1.61	Ontonagon	1.94	1.88
Genesee	1.66	1.61	Osceola	1.79	1.67
Gladwin	2.10	2.00	Oscoda	1.96	2.20
Gogebic	2.02	1.96	Otsego	1.84	1.59
Grand Traverse	1.99	1.58	Ottawa	1.74	1.51
Gratiot	1.77	1.63	Presque Isle	1.96	2.16
Hillsdale	1.71	1.50	Roscommon	1.89	2.23
Houghton	2.13	2.18	Saginaw	1.79	1.69
Huron	2.07	1.82	St. Clair	1.79	1.66
Ingham	1.54	1.30	St. Joseph	1.45	1.43
Ionia	1.98	1.73	Sanilac	1.79	1.69
Iosco	1.73	1.66	Schoolcraft	1.96	2.07
Iron	2.10	1.99	Shiawassee	1.66	1.57
Isabella	1.86	1.60	Tuscola	1.97	1.86
Jackson	1.70	1.56	Van Buren	1.66	1.62
Kalamazoo	1.59	1.40	Washtenaw	1.50	1.25
Kalkaska	1.91	2.13	Wayne	1.55	1.48
Kent	1.60	1.44	Wexford	1.74	1.73
Keweenaw	1.97	1.93			
			MICHIGAN	1.66	1.52

SOURCES: Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1962), Final Report PC(1)-24C, Table 36; and Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 44.

TABLE V-13. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, BY INDUSTRY: 1966-1978

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	1966	1967	1968	1969
Manufacturing industries	1,169.0	1,138.5	1,162.0	1,193.1
Durable goods industries	948.8	920.1	940.8	968.1
Lumber and wood products	11.8	11.7	11.2	11.9
Furniture and fixtures	23.2	23.2	23.0	24.0
Metal industries	246.9	235.1	242.3	248.3
Primary metal products	104.9	100.6	101.4	106.5
Fabricated metal products	141.9	134.5	140.9	141.7
Machinery (nonelectrical)	178.8	180.9	171.9	180.1
Electrical machinery	46.8	46.2	48.6	45.5
Transportation equipment	394.7	375.9	396.8	412.4
Motor vehicles and equipment	381.9	361.8	382.8	398.7
Other	12.8	14.1	14.0	13.6
Other durable goods	46.8	47.1	47.0	46.0
Nondurable goods industries	220.1	218.5	221.2	224.9
Food and kindred products	57.3	56.0	55.1	54.5
Textile mill products and apparel	24.3	23.0	26.2	26.5
Paper and allied products	29.5	29.3	28.5	28.5
Printing, publishing, and allied industries	30.9	31.6	31.9	34.7
Chemicals and petroleum refining and related industries	48.7	50.1	49.1	49.0
Other nondurable goods	29.4	28.4	30.4	31.8
Private nonmanufacturing industries[a]	1,260.4	1,311.0	1,330.7	1,398.3
Contract construction	115.2	120.0	107.7	128.6
Transportation, communication, and public utilities	140.2	143.5	145.6	149.7
Wholesale trade	127.9	133.1	135.8	137.2
Retail trade	410.7	419.7	433.8	455.8
Finance, real estate, and insurance	99.8	105.0	109.6	115.5
Selected services	353.0	376.8	385.5	399.5
Mining	13.5	12.8	12.6	12.0
Government	432.3	454.3	470.6	493.7
Federal	53.7	56.5	57.9	56.2
State	94.0	97.8	102.4	109.6
Local	284.6	300.1	310.4	327.9
TOTAL	2,861.7	2,903.8	2,963.3	3,085.1

Table V-13. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, BY INDUSTRY: 1966-1978 (cont.)

(Averages of 12 monthly estimates, in thousands of jobs)

1970	1971	1972	1973	1974	1975	1976	1977	1978
1,080.1	1,057.7	1,094.4	1,177.2	1,114.0	983.7	1,058.9	1,120.2	1,153.3
861.6	845.5	876.8	952.1	897.2	778.2	844.9	897.8	927.5
13.8	14.0	15.1	16.0	15.5	12.8	14.0	14.4	14.2
20.8	19.6	20.8	22.6	21.9	18.6	19.9	20.0	21.0
230.5	226.7	233.4	252.0	235.5	199.9	223.3	237.3	243.7
90.0	87.2	87.7	95.5	93.9	79.5	85.7	91.6	92.7
140.5	139.5	145.7	156.5	141.6	120.4	137.6	145.7	151.0
162.9	137.8	140.3	155.8	158.1	136.6	137.4	150.6	161.1
42.3	40.3	42.3	47.0	45.4	38.2	39.4	40.9	42.3
349.5	367.2	383.5	415.4	377.6	332.8	370.7	392.1	403.0
335.3	353.6	369.5	401.1	366.1	321.2	357.9	378.5	389.0
14.2	13.6	14.0	14.3	11.5	11.6	12.8	13.6	14.0
41.8	39.9	41.4	43.3	43.2	39.3	40.2	42.5	42.2
218.5	212.2	217.6	225.1	216.8	205.5	214.0	222.4	225.8
54.6	53.4	52.3	51.8	51.8	51.5	51.0	51.9	52.5
22.8	23.9	24.6	27.0	24.7	22.2	25.9	27.3	27.6
28.9	26.7	26.5	26.9	26.3	23.5	24.1	24.3	23.0
34.6	34.2	36.7	36.8	35.5	34.5	32.7	32.3	33.4
44.4	44.5	44.2	45.2	44.3	45.9	47.4	49.6	49.6
33.2	29.5	33.3	37.4	34.2	27.9	32.9	37.0	39.7
1,416.8	1,428.4	1,493.9	1,570.8	1,601.7	1,569.3	1,578.6	1,717.8	1,797.8
119.2	121.3	128.6	132.7	127.6	106.3	107.0	122.8	138.9
149.1	146.9	146.7	152.4	151.9	143.5	141.3	150.2	151.8
144.7	144.7	145.9	150.6	153.5	146.8	130.5	151.8	162.9
457.0	459.1	477.7	503.0	510.9	509.6	510.8	557.1	577.7
119.6	120.9	127.4	130.2	134.2	134.0	132.3	142.2	145.7
415.4	424.4	455.5	489.0	510.2	515.3	544.6	581.6	609.0
11.8	11.1	12.1	12.9	13.4	13.8	12.1	12.1	11.8
506.6	509.4	526.6	534.3	562.5	583.1	593.7	596.7	617.7
57.7	54.8	55.2	55.0	56.2	56.1	55.5	54.7	55.0
115.9	117.8	122.4	123.9	127.5	132.6	134.3	136.8	142.8
333.0	336.8	349.0	355.4	378.8	394.4	403.9	405.2	419.9
3,003.5	2,995.5	3,114.9	3,282.3	3,278.2	3,136.1	3,231.2	3,434.7	3,568.8

SOURCE: Michigan Employment Security Commission, special release.

a. Excludes domestic workers and agricultural employment.

TABLE V-14. CIVILIAN WAGE AND SALARY EMPLOYMENT IN MICHIGAN LABOR MARKET AREA, BY INDUSTRY: 1978

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	Ann Arbor	Battle Creek	Bay City	Benton Harbor	Detroit
Manufacturing industries	43.9	24.2	11.6	26.4	605.8
Durable goods industries	39.6	14.6	8.9	20.1	511.2
Lumber and wood products	.1	.1	.3	.4	2.2
Furniture and fixtures	(a)	0	0	(a)	1.7
Metal industries	2.4	4.3	.9	6.5	133.1
Primary metal products	.5	1.8	(a)	4.7	47.6
Fabricated metal products	1.9	2.5	(a)	1.8	85.5
Machinery (nonelectrical)	2.3	8.3	(a)	4.1	88.4
Electrical machinery	(a)	(a)	1.6	5.2	7.5
Transportation equipment	22.1	.2	4.3	2.9	258.0
Motor vehicles and equipment	(a)	(a)	(a)	2.7	250.5
Other	(a)	(a)	(a)	.2	7.5
Other durable goods	12.7	1.7	1.8	1.0	20.3
Nondurable goods industries	4.3	9.5	2.7	6.3	94.6
Food and kindred products	.4	7.0	.6	1.7	20.2
Textile mill products and apparel	(a)	(a)	(a)	(a)	18.2
Paper and allied products	(a)	1.3	(a)	1.0	4.2
Printing, publishing, and allied industries	1.9	.5	.2	1.7	15.5
Chemicals and petroleum refining and related industries	(a)	.3	(a)	.2	19.4
Other nondurable goods	2.0	.4	1.9	1.7	17.1
Private nonmanufacturing industries[b]	49.1	30.4	18.7	30.2	928.8
Contract construction	3.1	1.8	1.3	2.9	61.2
Transportation, communication, and public utilities	3.3	2.4	1.5	2.4	86.0
Wholesale trade	2.5	1.7	1.7	1.9	80.4
Retail trade	17.2	9.8	6.8	9.4	281.7
Finance, real estate, and insurance	3.3	3.7	1.2	2.2	84.5
Selected services	19.7[c]	11.0[c]	6.1[c]	11.4[c]	333.8
Mining	(a)	(a)	(a)	(a)	1.2
Government	41.4	12.5	5.5	8.6	260.2
Federal	2.2	3.9	.3	.4	33.6
State	28.3	.6	.5	.5	31.4
Local	10.4	8.1	4.7	7.7	195.2
TOTAL	134.4	67.2	35.8	65.2	1,794.8

TABLE V-14. CIVILIAN WAGE AND SALARY EMPLOYMENT IN MICHIGAN LABOR MARKET AREAS, BY INDUSTRY: 1978 (cont.)

(Averages of 12 monthly estimates, in thousands of jobs)

Flint	Grand Rapids	Jackson	Kalamazoo	Lansing	Muskegon	Saginaw	Upper Peninsula
86.6	88.3	16.4	34.4	44.5	22.0	36.4	15.2
82.9	65.8	12.9	17.0	39.1	18.9	33.7	10.4
0	1.4	.1	.3	.4	.1	.4	3.1
(a)	12.3	(a)	(a)	.3	1.6	.2	.9
14.7	21.9	4.1	6.8	5.7	7.3	13.1	1.6
(a)	5.1	.9	1.6	(a)	5.9	(a)	1.2
(a)	16.8	3.2	5.2	(a)	1.4	(a)	.4
2.2	13.5	2.5	3.3	3.8	8.0	3.8	2.6
2.1	5.2	.5	.3	.3	(a)	(a)	(a)
62.9	4.8	4.9	3.6	27.2	.6	15.4	.6
(a)	3.2	(a)	2.9	(a)	(a)	(a)	(a)
(a)	1.6	(a)	.7	(a)	(a)	(a)	(a)
1.0	6.5	.8	2.7	1.4	1.8	.8	1.6
3.7	22.5	3.5	17.4	5.4	3.1	2.7	4.8
.9	5.7	.5	1.9	1.3	.7	1.5	.9
.3	3.4	.1	(a)	(a)	.1	(a)	(a)
.5	1.6	.1	5.6	(a)	(a)	(a)	2.6
1.0	3.7	.4	1.5	1.5	.4	.1	.9
(a)	3.6	(a)	6.4	(a)	.6	.6	(a)
1.0	4.5	2.4	2.0	2.6	1.3	.2	.4
85.4	136.3	29.0	51.8	79.8	27.8	41.9	53.5
5.9	13.1	1.7	4.3	6.2	2.8	3.0	6.1
6.7	10.1	5.0	3.7	5.2	2.9	4.4	4.7
9.5	13.2	1.7	3.1	6.7	1.7	2.8	2.9
29.8	45.2	9.3	17.5	28.0	9.4	14.9	17.2
5.7	9.5	1.4	3.9	8.6	1.7	3.7	2.9
27.3[c]	44.9	9.9[c]	19.2	25.1[c]	9.1	13.1[c]	12.6
(a)	.3	(a)	.1	(a)	.2	(a)	7.1
28.1	31.0	8.5	19.9	65.2	10.6	11.8	29.4
1.4	1.6	.4	1.0	2.6	.4	1.3	3.1
1.8	3.1	1.7	7.1	39.9	1.2	1.3	8.4
24.9	26.3	6.4	11.8	22.7	9.0	9.2	17.9
200.1	255.6	53.9	106.1	189.5	60.4	90.1	98.1

SOURCE: Michigan Employment Security Commission, special release.
NOTE: Labor Market Areas are the same as Standard Metropolitan Statistical Areas, except for Benton Harbor (Berrien County), Port Huron (St. Clair County), and Upper Peninsula (15 counties) which are not SMSAs.
a. Figures not shown separately to avoid possible disclosure of data for individual companies.
b. Excludes domestic workers and agricultural employment.
c. Includes mining.

TABLE V-15. TOTAL INSURED UNEMPLOYMENT AND INSURED UNEMPLOYMENT RATES IN MICHIGAN AND THE UNITED STATES: 1952-1977

(In thousands)

Year	Michigan		United States	
	Total[a]	Rate[b]	Total[a]	Rate[b]
1952	54.6	3.2	1,024.1	2.9
1953	40.8	2.2	994.7	2.8
1954	113.0	6.2	1,864.9	5.2
1955	51.4	2.9	1,253.8	3.5
1956	99.7	5.3	1,211.9	3.2
1957	92.9	4.8	1,449.8	3.6
1958	199.8	11.2	2,508.9	6.4
1959	88.4	5.3	1,682.5	4.4
1960	93.9	5.3	1,905.8	4.8
1961	131.9	7.3	2,275.2	5.6
1962	76.4	4.5	1,767.4	4.4
1963	62.5	3.5	1,775.3	4.3
1964	52.1	2.9	1,605.4	3.8
1965	38.2	2.0	1,327.6	3.0
1966	40.5	2.0	1,061.4	2.3
1967	62.2	2.7	1,204.5	2.5
1968	55.9	2.4	1,110.6	2.2
1969	52.8	2.2	1,100.0	2.1
1970	117.4	4.8	1,804.6	3.4
1971	125.6	5.3	2,150.5	4.1
1972	102.6	4.4	1,848.5	3.5
1973	79.1	3.1	1,632.5	2.7
1974	163.4	5.9	2,248.5	3.5
1975	255.3	9.3	3,991.9	6.0
1976	161.4	5.7	2,991.5	4.5
1977	118.1	3.9	2,437.8	3.6

SOURCES: U.S. Department of Labor, Manpower Report of the President, 1964 and 1974 (Washington, D.C.: annually), for 1974, Tables D-5 and D-6 (publication was discontinued in 1975); and U.S. Department of Labor, Employment and Training Report of the President, 1978 (Washington, D.C.: 1978), Table D-5.

a. Covered under state programs.

b. Insured unemployment as a percentage of average covered employment. Prior to 1954, covered employment for the same calendar year as insured unemployment was used as the base; from 1954 through 1958, the rates were based on covered employment for the fiscal year (six-month lag); beginning in 1959, the rates are based on covered employment for the previous calendar year (twelve-month lag).

TABLE V-17. WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, NUMBER, WORKERS INVOLVED, AND MAN-DAYS IDLE: 1941-1977

	Michigan				United States			
			Man-days idle during year				Man-days idle during year	
Year	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]
1941	252	333.6	1,897.6	—	4,288	2,360.0	23,000.0	.32
1942	261	114.7	258.6	--	2,968	840.0	4,180.0	.05
1943	413	274.5	592.3	--	3,752	1,980.0	13,500.0	.15
1944	562	568.7	1,836.9	--	4,956	2,120.0	8,720.0	.09
1945	478	521.1	5,960.0	—	4,750	3,470.0	38,000.0	.47
1946	311	248.0	10,600.0	—	4,985	4,600.0	116,000.0	1.43
1947	188	180.0	2,550.0	--	3,693	2,170.0	34,600.0	.41
1948	196	262.0	2,450.0	--	3,419	1,960.0	34,100.0	.37
1949	139	240.0	2,120.0	--	3,606	3,030.0	50,500.0	.59
1950	322	345.0	7,360.0	--	4,843	2,410.0	38,800.0	.44
1951	315	215.0	1,600.0	--	4,737	2,220.0	22,900.0	.23
1952	326	311.0	3,500.0	--	5,117	3,540.0	59,100.0	.57
1953	331	297.0	2,450.0	--	5,091	2,400.0	28,300.0	.26
1954	204	171.0	1,060.0	--	3,468	1,530.0	22,600.0	.21
1955	327	292.0	1,740.0	--	4,320	2,650.0	28,200.0	.26
1956	210	98.8	1,190.0	--	3,825	1,900.0	33,100.0	.29
1957	208	138.0	1,280.0	.24	3,673	1,390.0	16,500.0	.14
1958	275	437.0	3,400.0	.72	3,694	2,060.0	23,900.0	.22
1959	172	83.5	2,680.0	.53	3,708	1,880.0	69,000.0	.61
1960	145	65.3	722.0	.14	3,333	1,320.0	19,100.0	.17
1961	180	239.0	1,820.0	.38	3,367	1,450.0	16,300.0	.14
1962	196	81.4	1,440.0	.28	3,614	1,230.0	18,600.0	.16
1963	135	36.8	611.0	.12	3,362	941.0	16,100.0	.13
1964	197	249.0	4,540.0	.83	3,655	1,640.0	22,900.0	.18
1965	229	82.0	1,560.0	.27	3,963	1,550.0	23,300.0	.18
1966	275	143.0	1,820.0	.30	4,405	1,960.0	25,400.0	.19
1967	283	284.0	5,180.0	.81	4,595	2,870.0	42,100.0	.30
1968	354	261.1	7,752.7	1.22	5,045	2,649.0	49,018.0	.32
1969	305	90.2	1,614.5	.22	5,700	2,481.0	42,869.0	.28
1970	313	323.6	11,143.5	1.75	5,716	3,305.2	66,413.8	.37
1971	282	126.3	2,942.8	.46	5,138	3,279.6	47,589.1	.32
1972	167	54.2	851.3	.13	5,010	1,713.6	27,066.4	.17
1973	262	210.7	1,788.8	.22	5,353	2,250.7	27,948.4	.14
1974	346	121.7	3,130.8	.38	6,074	2,777.7	47,990.9	.24
1975	189	35.0	934.6	.12	5,031	1,745.6	31,237.0	.16
1976	260	209.0	3,151.3	.38	5,648	2,420.0	37,858.9	.19
1977	327	97.9	1,717.1	.20	5,506	2,040.1	35,821.8	.17

SOURCES: Bureau of Labor Statistics, Work Stoppages, 1977 and First 9 Months of 1978 (Washington, D.C.: 1979), Summary 79-2, Table 7 (1977 data), Analysis of Work Stoppages, 1974, Bulletin 1902 (Washington, D.C.: 1976), Table 21 (1974 data), Handbook of Labor Statistics 1975--Reference Edition, Bulletin 1865 (Washington, D.C.: 1975), Table 159 (1941-1973 U.S. data) and Table 164 (1956-1973 Michigan data), and various BLS bulletins commencing with 711 (1941) and ending with 1196 (1955; 1941-1955 Michigan data).

a. Percentage of estimated total working time. Data for individual states not published prior to 1957.

TABLE V-18. NUMBER OF WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, WORKERS INVOLVED, AND MAN-DAYS IDLE, BY INDUSTRY GROUP: 1976

Industry group	Michigan[a]			United States		
	Stoppages beginning in year		Man-days idle during year (all stoppages)	Stoppages beginning in year		Man-days idle during year (all stoppages)
	Number	Workers involved		Number	Workers involved	
All industries	260	209.0	3,151.3	5,648	2,420.0	37,858.9
Manufacturing	169	163.2	2,713.9	2,245	974.5	24,263.1
Ordnance and accessories	--	--	--	1	0.8	42.1
Food and kindred products	17	3.8	123.7	227	90.4	1,848.0
Tobacco manufactures	--	--	--	1	.1	3.2
Textile mill products	1	.1	.4	36	7.9	115.0
Apparel and other finished products made from fabrics and similar materials	3	5.3	103.0	47	11.6	230.5
Lumber & wood products, except furniture	3	.4	23.5	69	10.8	429.4
Furniture and fixtures	6	.7	9.4	73	10.3	266.6
Paper and allied products	14	2.1	77.5	95	23.0	479.0
Printing, publishing, & allied products	--	--	.7	54	13.1	225.4
Chemicals and allied products	9	1.4	29.6	129	28.8	1,116.8
Petroleum refining & related industries	1	(3)	.3	17	1.1	19.1
Rubber & miscellaneous plastics products	9	4.3	329.0	120	93.1	6,082.4
Leather and leather products	2	.4	4.6	12	2.6	55.1
Stone, clay, and glass products	6	1.9	70.3	146	28.0	612.5
Primary metal industries	15	8.5	166.3	197	54.9	1,304.3
Fabricated metal products, except ordnance, machinery, and transportation equipment	24	9.4	199.2	309	63.8	1,631.5
Machinery, except electrical	32	14.2	148.3	309	144.5	2,721.8

TABLE V-18. NUMBER OF WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, WORKERS INVOLVED, AND MAN-DAYS IDLE, BY INDUSTRY GROUP: 1976 (cont.)

Industry group	Michigan[a]			United States		
	Stoppages beginning in year		Man-days idle during year (all stoppages)	Stoppages beginning in year		Man-days idle during year (all stoppages)
	Number	Workers involved		Number	Workers involved	
Electrical machinery, equipment, and supplies	10	10.1	295.2	204	134.8	2,235.5
Transportation equipment	18	99.7	1,087.8	130	238.1	4,322.9
Professional, scientific, & controlling instruments; photographic and optical goods; watches and clocks	3	.5	10.4	29	5.3	128.1
Miscellaneous manufacturing industries	4	.3	34.7	60	11.4	393.9
Nonmanufacturing	92	45.7	437.4	3,406	1,445.5	13,595.8
Agriculture, forestry, and fisheries	--	--	--	10	2.4	13.9
Mining	1	.1	.4	1,425	514.7	2,220.1
Contract construction	24	9.2	172.9	503	172.4	3,293.8
Transportation, communication, electric, gas, and sanitary services	12	19.6	85.6	354	386.4	3,461.3
Wholesale and retail trade	21	3.5	75.4	467	55.8	1,311.3
Finance, insurance, and real estate	--	--	--	27	25.4	273.0
Services	10	4.3	56.0	243	107.3	1,383.6
Government[b]	26	9.1	47.2	378	180.7	1,690.7

SOURCE: Bureau of Labor Statistics, Work Stoppages, 1976 (Washington, D.C.: 1977), Table 5, and Work Stoppages Region V 1976, Table 2.

a. No work stoppages were recorded during 1974 for the industry groups for which no data are presented.

b. The situations reported here have, for statistical purposes, been deemed to fall within the BLS definition of a work stoppage. This decision does not constitute a legal determination that a work stoppage has taken place in violation of any law or public policy.

TABLE V-19. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1976 AND 1977

County	1976			1977		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Alcona	722	4,717,615	125.66	820	5,611,888	131.61
Alger	1,311	10,395,484	152.49	1,398	12,938,813	177.99
Allegan	10,879	101,914,558	180.15	11,814	119,778,052	194.97
Alpena	7,363	78,051,347	203.86	7,767	88,229,817	218.45
Antrim	2,576	20,744,332	154.86	2,683	24,175,879	173.28
Arenac	2,185	15,921,476	140.13	2,463	19,306,139	150.74
Baraga	1,434	12,081,205	162.02	1,439	13,171,733	176.03
Barry	5,660	63,309,551	215.10	5,752	64,324,864	215.06
Bay	26,709	303,891,537	218.81	28,358	350,490,378	237.68
Benzie	1,749	13,272,693	145.94	1,866	15,659,603	161.39
Berrien	50,774	545,513,497	206.61	53,597	620,858,544	222.77
Branch	8,315	81,588,995	188.70	9,360	98,954,040	203.31
Calhoun	44,401	528,559,590	228.93	46,064	580,016,864	242.15
Cass	7,247	68,538,104	181.87	7,934	79,501,608	146.70
Charlevoix	4,269	38,235,326	172.24	4,943	45,959,446	178.81
Cheboygan	3,889	33,994,025	168.10	4,147	38,285,622	177.54
Chippewa	4,059	32,304,482	153.05	4,459	37,369,906	161.13
Clare	2,844	19,962,647	134.99	3,109	23,418,609	144.86
Clinton	3,961	37,025,421	179.76	4,256	44,063,209	199.10
Crawford	1,820	13,742,235	145.21	1,963	15,979,062	156.54
Delta	8,901	89,094,622	192.49	8,957	92,784,992	199.21
Dickinson	6,778	72,165,829	204.75	7,235	80,448,973	213.83
Eaton	7,706	74,091,722	184.90	8,528	87,151,740	196.53
Emmet	6,164	56,253,279	175.50	6,615	63,960,566	185.94
Genesee	138,126	2,115,227,722	294.50	149,620	2,521,028,232	324.03

TABLE V-16. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1946-1978

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments	Cumulative benefit payments[a]	Balance in fund
1946	60,890.3	4,731.0	---	519,603.0	123,310.1	301,461.2	218,141.8
1947	43,626.4	4,050.6	---	567,280.0	43,851.4	345,312.5	221,967.5
1948	70,233.6	4,941.3	---	642,454.9	35,927.8	381,240.3	261,214.6
1949	79,584.3	6,184.9	---	728,224.2	50,056.5	431,296.8	296,927.4
1950	68,839.0	6,363.7	---	803,426.9	82,853.5	514,150.3	289,276.5
1951	71,272.1	6,817.7	---	881,516.6	27,519.6	541,670.0	339,846.7
1952	77,834.3	7,667.0	---	967,018.0	62,955.8	604,625.7	362,392.2
1953	83,921.3	8,735.1	---	1,059,674.4	39,846.4	644,472.1	415,202.3
1954	81,546.8	10,313.8	---	1,151,535.0	96,097.9	740,570.1	410,965.0
1955	61,695.5	8,652.9	---	1,221,883.3	114,805.2	855,375.3	366,508.1
1956	61,471.7	8,231.1	---	1,291,586.2	105,559.3	960,934.6	330,651.6
1957	96,133.5	7,620.4	1,847.1[b]	1,397,187.2	134,977.2	1,095,911.8	301,275.5
1958	113,509.3	7,030.4	3,755.6[b]	1,521,482.5	269,470.4	1,365,382.2	156,100.3
1959	121,143.9	2,546.9	114,704.5[b]	1,759,877.8	193,522.4	1,558,904.6	200,973.2
1960	154,066.2	2,830.3	---	1,916,774.3	135,611.5	1,694,516.1	222,258.2
1961	149,374.3	2,820.1	---	2,068,968.7	224,542.4	1,919,058.5	149,910.2
1962	159,179.2	1,458.1	---	2,229,606.0	134,753.3	2,053,811.8	175,794.1
1963	164,334.9	3,034.0	---	2,396,974.9	100,079.4	2,153,891.2	243,083.7
1964	187,927.1	6,664.6	---	2,591,566.6	81,581.0	2,235,472.3	356,094.3
1965	181,154.7	11,304.2	8,131.5[c]	2,775,893.9	64,666.0	2,300,138.3	475,755.7
1966	178,441.2	15,941.7	26,100.0[c]	2,944,176.8	61,990.0	2,362,128.3	582,048.6
1967	161,241.0	20,12.3	28,800.0[c]	3,097,230.1	110,923.2	2,473,051.5	624,178.7
1968	127,967.4	22,199.5	84,860.6[c]	3,162,536.5	118,523.9	2,591,575.4	570,961.1

TABLE V-16. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1946-1978 (cont.)

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments	Cumulative benefit payments[a]	Balance in fund
1969	125,969.1	25,026.4	---	3,313,532.0	109,506.0	2,701,081.3	612,450.7
1970	125,788.5	28,382.5	---	3,467,703.0	178,076.2[d]	2,879,157.6	588,545.5
1971	128,120.4	24,797.4	---	3,620,620.8	359,659.3[d]	3,238,816.9	381,804.0
1972	232,574.7	15,199.6	---	3,868,395.4	284,871.9[d]	3,523,688.8	344,706.6
1973	338,939.6	19,086.9	---	4,226,421.8	214,737.6[d]	3,738,426.4	487,995.4
1974	313,218.6	29,504.9	---	4,539,640.4	330,066.5[d]	4,068,492.9	500,652.4
1975	299,102.7	18,383.2	81,000.0[e]	4,938,126.3	813,219.0[d]	4,881,711.9	85,919.3
1976	368,355.1	15,426.0	490,000.0[e]	5,796,496.8	727,131.5[d]	5,608,843.4	217,158.3
1977	558,208.6	0	53,000.0[e]	6,357,432.1	523,723.5[d]	6,132,566.9	304,643.4
1978	680,179.3	248.8[f]	---	6,698,039.8	439,511.8[d]	6,672,933.5	598,833.0

SOURCE: Michigan Employment Security Commission, Annual Report, 1946 through 1978 (Lansing: annually), Appendix, p. 28 (1978 data).

a. 1 January 1937 - 30 June 1976.

b. Includes funds credited to the Michigan account in the Unemployment Trust Fund on 1 July of indicated year by the Secretary of the Treasury in accordance with the provisions of Title IX, Section 903 of the Social Security Act, as amended by Public Law 567, 83rd Cong., 2nd sess. (Reed bill) and $113 million advanced in September 1958 under provisions of Title XII, Section 1201, of the Social Security Act. Repayment of $15,381,202.36 was made through 30 June 1967 under automatic repayment provisions of the Federal Unemployment Tax Act.

c. Final repayments were made during 1968 by direct transfer from the fund of the outstanding balance on the 1958 loan of $113 million in the amount of $71,187,297.64 and on 1958-1959 TUC costs in the amount of $13,673,334.98. Installment repayments were also made annually by direct transfer from the fund on the loan balance in 1964, 1965, and 1966, and on TUC costs in 1965 and 1966.

d. Includes state share of extended benefits.

e. Advance from federal unemployment account.

f. Adjustment for prior years.

TABLE V-19. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1976 AND 1977 (cont.)

County	1976			1977		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Gladwin	1,602	12,758,297	153.15	1,792	14,990,322	160.87
Gogebic	3,403	23,982,473	135.53	3,416	26,069,696	146.76
Grand Traverse	15,188	139,876,573	177.11	16,685	162,154,968	186.90
Gratiot	9,914	97,525,093	189.18	10,149	104,591,777	198.19
Hillsdale	7,815	76,090,257	187.24	8,265	88,565,037	206.07
Houghton	5,816	46,956,680	155.26	6,102	52,075,675	164.12
Huron	5,490	49,839,564	174.58	5,904	58,360,352	190.09
Ingham	89,507	1,101,618,824	236.69	93,729	1,258,655,570	258.24
Ionia	7,481	71,445,288	183.66	8,269	84,561,844	196.66
Iosco	4,114	33,630,560	157.21	3,889	33,278,047	164.56
Iron	2,345	16,155,603	132.49	2,397	17,451,295	140.01
Isabella	7,182	64,514,251	172.75	7,771	73,342,567	181.50
Jackson	39,524	468,036,740	227.73	41,595	527,008,767	243.65
Kalamazoo	67,575	788,600,315	224.42	72,160	892,495,803	237.85
Kalkaska	1,635	17,439,421	205.12	1,727	21,865,527	243.48
Kent	153,862	1,665,576,731	208.17	163,244	1,909,038,170	224.89
Keweenaw	151	977,909	124.54	174	1,233,069	136.28
Lake	454	2,776,782	117.62	501	3,249,367	124.73
Lapeer	7,368	72,415,100	189.01	8,064	83,089,363	198.15
Leelanau	1,158	7,461,527	123.91	1,473	1,000,634	130.64
Lenawee	21,279	237,710,145	214.83	22,360	265,234,312	228.12
Livingston	9,965	92,612,059	178.73	11,188	111,027,310	190.88
Luce	810	5,382,312	127.79	901	6,317,801	134.85
Mackinac	1,884	13,553,161	138.34	1,991	14,919,044	144.10
Macomb	161,637	2,225,250,690	268.32	178,657	2,735,199,928	294.42

TABLE V-19. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1976 AND 1977 (cont.)

County	1976			1977		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Manistee	4,781	46,859,953	188.49	5,048	54,481,357	207.55
Marquette	15,766	157,745,265	192.41	16,239	167,233,041	198.04
Mason	5,557	49,152,829	170.10	5,835	55,047,485	181.42
Mecosta	3,911	29,394,283	145.13	3,997	31,740,007	152.71
Menominee	5,170	44,129,130	164.15	5,455	49,665,245	175.09
Midland	24,064	367,355,133	293.57	26,369	428,752,896	312.69
Missaukee	624	4,258,358	129.37	642	4,873,325	145.98
Monroe	18,45	220,689,262	230.34	19,874	262,331,580	253.84
Montcalm	9,498	88,093,158	178.36	10,296	102,372,419	191.21
Montmorency	1,026	6,392,694	119.82	1,159	7,948,611	131.89
Muskegon	44,590	499,706,578	215.51	46,111	553,973,264	231.04
Newaygo	4,577	41,501,560	174.37	4,613	43,685,674	182.12
Oakland	295,336	3,776,006,051	245.87	330,621	4,594,962,672	267.27
Oceana	2,123	14,084,318	127.58	2,168	16,036,154	142.25
Ogemaw	2,291	18,483,732	155.15	2,317	20,342,162	168.84
Ontonagon	2,642	32,123,334	233.82	2,464	31,204,893	243.54
Osceola	2,895	24,062,607	159.84	2,886	28,497,879	189.89
Oscoda	590	3,532,635	115.14	606	4,297,095	136.36
Otsego	3,447	30,374,932	169.46	3,928	37,095,903	181.61
Ottawa	37,586	373,460,053	191.08	42,173	450,507,547	205.43
Presque Isle	1,992	21,168,893	204.37	2,015	23,378,719	223.12
Roscommon	1,991	12,502,762	120.76	2,318	15,281,012	126.78
Saginaw	68,596	939,354,960	263.35	72,404	1,078,399,447	286.43
Sanilac	5,692	51,582,378	174.27	6,552	62,221,151	182.63
Schoolcraft	1,609	13,375,420	159.86	1,672	15,503,421	178.32

TABLE V-19. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1976 AND 1977 (cont.)

County	1976			1977		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Shiawassee	11,615	110,021,215	182.16	11,664	119,164,189	196.47
St. Clair	24,598	261,651,012	204.56	26,087	302,677,421	223.13
St. Joseph	13,764	140,581,913	196.42	14,477	158,355,803	210.35
Tuscola	6,754	64,781,148	184.45	7,369	75,577,305	197.23
Van Buren	9,907	92,231,194	179.03	9,833	99,158,519	193.93
Washtenaw	75,553	1,015,645,479	258.52	83,422	1,214,956,801	280.08
Wayne	850,031	12,105,546,196	273.87	872,113	13,529,845,598	298.34
Wexford	5,840	50,908,349	167.64	6,753	63,371,449	180.47
State-wide	57,518	625,550,102	209.15	55,282	674,908,911	234.78
TOTAL	2,607,366	33,125,091,207	244.31	2,762,308	38,076,099,462	265.08

SOURCE: Michigan Employment Security Commission, special release.

a. Average of 12 monthly figures.

TABLE V-20. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY INDUSTRY: 1977

Industry	Average employment[a]	Payrolls (000)	Average weekly earnings
Agriculture, forestry, and fisheries	8,855	$ 75,619	$ 164.22
Farms and agricultural services	8,583	73,810	165.38
Forestry and fisheries	272	1,809	127.91
Mining	12,974	212,895	315.56
Metal and coal mining	5,843	100,408	330.47
Crude petroleum and natural gas	3,571	54,986	269.12
Nonmetallic mining and quarrying	3,888	57,500	284.41
Construction	121,662	1,955,916	309.17
Building construction-general contractors	32,752	490,522	288.02
General contractors other than building	18,104	356,426	378.61
Construction-special trade contractors	70,807	1,108,968	301.19
Manufacturing	1,121,245	20,394,636	349.79
Foods and kindred products	51,737	732,422	272.24
Tobacco manufactures	9	67	142.11
Textile mill products	2,953	54,808	356.93
Apparel and other products	23,983	373,907	229.82
Lumber and wood products (except furniture)	14,166	138,279	187.72
Furniture and fixtures	20,012	274,840	264.11
Paper and allied products	24,288	372,666	295.07
Printing, publishing, and allied products	31,903	426,680	257.20
Chemicals and allied products	45,839	834,318	350.02
Petroleum refining and related industries	3,158	52,373	318.93
Rubber and misc. plastic products	32,782	405,799	238.05
Leather and leather products	3,697	38,103	198.20
Stone, clay, and glass products	21,553	351,298	313.45
Primary metal products	92,709	1,786,039	370.48
Fabricated metal products	137,529	2,250,251	314.65
Machinery (except electrical)	148,055	2,600,562	337.79
Electrical machinery, equipment, and supplies	42,170	632,776	288.56
Transportation equipment	404,399	8,807,360	418.82
Professional, scientific, and controlling instruments	11,060	147,308	256.14
Miscellaneous manufacturing industries	9,216	114,779	239.51
Transportation, communication, and utilities	133,458	2,197,471	316.65
Local railways and bus lines	4,469	34,008	146.34
Motor freight, transportation, and warehousing	43,456	755,160	334.18

TABLE V-20. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY INDUSTRY: 1977 (cont.)

Industry	Average employment[a]	Payrolls (000)	Average weekly earnings
Transportation (cont.)			
Water transportation	1,656	$ 24,312	$ 282.33
Transportation, other	10,593	152,428	276.72
Communication	39,768	637,666	308.36
Electric, gas, and sanitary services	33,516	593,900	340.77
Wholesale and retail trade	709,248	6,465,596	175.31
Wholesale trade	152,895	2,364,584	297.41
Retail building materials, hardware, and farm equipment	23,023	248,816	207.83
Retail general merchandise	88,458	694,628	151.01
Retail food	81,012	745,310	176.92
Retail automobile and gasoline service stations	72,795	807,823	213.41
Retail apparel and accessories	37,095	248,334	128.74
Retail furniture, home furnishings, and equipment	21,524	220,476	196.99
Eating and drinking places	173,570	703,966	78.00
Retail miscellaneous stores	58,876	431,657	140.99
Finance, insurance, and real estate	138,958	1,571,454	217.48
Credit agencies and banks	69,098	746,118	207.65
Insurance carriers	33,413	437,853	252.01
Insurance agents, brokers, & service	14,428	183,065	244.00
Real estate	20,682	182,325	169.53
Combined real estate, insurance, holding companies, and others	1,420	22,093	299.21
Services	515,910	5,202,514	193.93
Hotels, rooming houses, camps	25,431	129,889	98.22
Personal services	35,297	244,739	133.34
Business service, miscellaneous	80,083	759,549	182.39
Automobile repair, services, & garage	22,946	234,004	196.12
Miscellaneous repair services	9,362	111,434	228.90
Motion pictures	5,026	27,667	105.86
Amusement and recreation services, other	25,559	171,513	129.05
Medical and other health services	207,648	2,292,034	212.27
Legal services	13,497	214,998	306.33
Educational services	11,114	107,020	185.18
Social services	20,000	142,330	136.86
Museums	163	1,246	147.03
Nonprofit membership organizations	25,404	193,473	146.46
Private households	45	475	202.82
Miscellaneous services	34,332	572,143	320.48
TOTAL	2,762,308	38,076,099	265.08

SOURCE: Michigan Employment Security Commission, special release.
a. Average of 12 monthly figures.

TABLE V-21. OCCUPATION GROUP, INDUSTRY GROUP, AND MEDIAN INCOME OF PERSONS 14 YEARS OLD AND OLDER, BY SEX, MICHIGAN AND THE UNITED STATES: SPRING 1976

(Numbers of workers in thousands)

Occupation group and industry	Male				Female			
	Michigan		United States		Michigan		United States	
	Number[a]	Income[b]	Number[a]	Income[b]	Number[a]	Income[b]	Number[a]	Income[b]
Professional, technical, and kindred workers	364	$15,512	8,488	$14,369	277	$ 8,426	6,802	$ 8,097
Managers and administration, except farm	280	15,825	7,976	15,140	86	9,053	2,328	7,136
Sales workers	141	9,255	3,529	10,052	122	2,337	2,961	2,115
Clerical and kindred workers	141	11,822	3,675	9,590	615	5,456	14,704	5,348
Craftsmen and kindred workers	584	12,602	12,021	10,758	--	--	--	--
Operatives, including transportation	522	10,222	10,213	8,510	198	4,639	5,166	4,319
Laborers, except farm	185	3,459	5,075	3,491	--	--	--	--
Service workers	239	4,526	5,856	4,325	470	1,529	10,202	1,868
Cleaning service workers	--	--	--	--	61	1,498	1,127	2,263
Food service workers	--	--	--	--	192	1,499	3,816	1,778
Farm workers	76	1,498	2,990	2,737	14	(c)	845	769
Agriculture, forestry, and fisheries	95	1,361	3,628	3,040	19	(c)	1,045	892
Manufacturing	977	12,772	15,311	10,973	274	6,021	7,007	5,372
Durables	802	13,043	9,775	11,254	173	6,853	3,014	6,260
Nondurables	175	10,831	5,536	10,571	100	4,685	3,992	4,810
Transportation, communication, and public utilities	145	13,553	4,737	12,403	61	7,255	1,382	7,779
Wholesale and retail trade	438	6,658	11,740	7,606	479	2,301	10,623	2,476
Service industries	670	11,023	18,038	10,159	984	4,524	23,727	4,595
All other industries	206	10,067	6,368	9,285	8	(c)	458	5,378
TOTAL	2,532	11,200	59,822	9,741	1,825	4,003	44,243	4,153

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, Number 111 (Washington, D.C.: 1978), Tables 1B and 7B.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Income data pertain to 1975.

a. Includes persons with no income.

b. Persons with income only.

c. Not given due to small sample size.

TABLE V-22. PREVIOUS YEAR'S MEDIAN MONEY INCOME, BY AGE GROUP, AMONG MALES IN MICHIGAN AND THE UNITED STATES: CENSUS 1950, 1960, AND 1970, AND SPRING 1976

Age group	Males, Michigan			Males, United States		
	Total	With income	Median income[a]	Total	With income	Median income[a]
1950						
14 - 19	259,820	99,420	$ 452	6,413,490	2,582,790	$ 435
20 - 24	236,675	202,180	2,212	5,559,265	4,614,270	1,669
25 - 34	502,470	459,735	3,172	11,467,290	10,344,890	2,737
35 - 44	442,220	403,305	3,103	10,402,195	9,390,155	3,073
45 - 54	373,735	335,445	3,393	8,484,515	7,503,240	2,979
55 - 64	292,295	254,240	3,052	6,540,100	5,623,060	2,551
65 and older	220,590	167,205	1,255	5,734,250	4,330,765	1,128
TOTAL	2,327,805	1,921,530	3,007	54,601,105	44,389,170	2,434
1960						
14 - 19	337,592	162,999	672	8,101,561	4,100,036	720
20 - 24	209,715	194,946	3,070	5,283,232	4,920,195	2,573
25 - 34	497,718	482,874	5,390	11,173,569	10,847,233	4,823
35 - 44	521,503	507,969	5,938	11,739,191	11,444,477	5,465
45 - 54	432,152	418,367	5,684	10,139,671	9,793,203	5,097
55 - 64	327,716	312,896	5,167	7,569,153	7,183,261	4,380
65 and older	293,409	277,321	1,878	7,308,985	6,875,832	1,766
TOTAL	2,619,805	2,357,372	4,844	61,315,362	55,164,237	4,111
1970						
14 - 19	540,816	296,461	970	11,858,271	6,247,359	904
20 - 24	321,269	302,391	4,813	7,753,863	7,189,663	3,653
25 - 34	530,434	519,990	9,172	12,167,833	11,873,926	7,952
35 - 44	492,892	485,252	10,535	11,268,698	11,068,665	9,067
45 - 54	488,324	481,366	10,125	11,172,259	10,968,373	8,767
55 - 64	364,679	355,592	8,458	8,823,380	8,574,407	7,260
65 and older	328,252	318,894	3,101	8,437,630	8,172,602	2,865
TOTAL	3,066,064	2,759,946	7,799	71,481,904	64,094,995	6,444
1976						
14 - 24	966,000	703,000	2,569	21,812,000	16,386,000	2,730
25 - 34	633,000	625,000	12,538	15,461,000	15,275,000	13,438
35 - 44	478,000	478,000	14,766	11,063,000	10,979,000	16,121
45 - 54	508,000	508,000	14,410	11,321,000	11,223,000	15,855
55 - 64	386,000	383,000	12,350	9,340,000	9,265,000	13,734
65 and older	320,000	320,000	5,928	8,930,000	8,903,000	6,264
TOTAL	3,291,000	3,017,000	10,402	77,926,000	72,030,000	8,974

SOURCE: Bureau of the Census, Census of Population: 1950, vol. 2, Characteristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1953), Table 139, and Part 22 Michigan (Washington, D.C.: U.S. Government Printing Office, 1952), Table 89; Census of Population: 1960, vol. 1, Characteristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1964), Table 219, and Part 24, Michigan (Washington, D.C.: U.S. Government Printing Office, 1963), Table 134; 1970 Census of Population, vol 1, Charateristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), and Part 24, Michigan (Washington, D.C.: U.S. Government Printing Office, 1973), Table 193; and Current Population Reports, Consumer Income, Series P-60, Number 111 (Washington, D.C.: U.S. Government Printing Office, 1978), Tables 1B and 7B.

a. Median income for 1949, 1959, 1969 and 1975, respectively.

TABLE V-23. PREVIOUS YEAR'S MEDIAN MONEY INCOME, BY AGE GROUP, AMONG FEMALES IN MICHIGAN AND THE UNITED STATES: CENSUS 1950, 1960, AND 1970, AND SPRING 1976

Age group	Females, Michigan			Females, United States		
	Total	With income	Median income[a]	Total	With income	Median income[a]
1950						
14 - 19	263,345	78,135	$ 432	6,369,125	1,817,640	$ 419
20 - 24	252,325	132,785	1,489	5,878,040	3,078,010	1,276
25 - 34	532,225	195,665	1,514	12,174,105	4,749,475	1,309
35 - 44	445,285	164,730	1,571	10,837,650	4,366,450	1,358
45 - 54	353,880	129,000	1,533	8,687,605	3,522,555	1,316
55 - 64	266,365	87,250	1,063	6,633,170	2,473,635	1,006
65 and older	235,525	100,290	583	6,522,600	2,937,785	602
TOTAL	2,349,000	887,855	1,161	57,102,295	22,945,550	1,029
1960						
14 - 19	344,866	130,957	666	7,933,738	2,975,203	696
20 - 24	240,461	148,211	1,700	5,519,937	3,444,914	1,672
25 - 34	517,865	222,635	1,970	11,648,510	5,457,879	1,848
35 - 44	540,884	253,987	2,227	12,336,417	6,297,961	2,039
45 - 54	431,002	222,315	2,387	10,485,675	5,838,567	2,185
55 - 64	322,221	168,595	1,631	8,138,691	4,603,113	1,611
65 and older	332,439	246,450	756	8,898,256	6,672,682	784
TOTAL	2,729,758	1,393,150	1,438	64,961,224	35,290,319	1,415
1970						
14 - 19	532,840	225,172	838	11,535,690	4,662,997	805
20 - 24	370,202	278,749	2,781	8,351,006	6,305,699	2,696
25 - 34	547,258	301,608	3,571	12,678,144	7,453,895	3,312
35 - 44	514,604	296,795	3,609	11,864,123	7,207,678	3,381
45 - 54	515,375	309,933	3,959	11,986,234	7,654,078	3,623
55 - 64	386,399	247,486	3,079	9,836,844	6,588,961	2,904
65 and older	426,846	371,982	1,446	11,664,224	10,137,208	1,450
TOTAL	3,293,524	2,031,725	2,378	77,916,285	50,010,616	2,328
1976						
14 - 24	1,020,000	684,000	1,966	22,072,000	14,714,000	1,919
25 - 34	688,000	495,000	5,250	15,974,000	11,563,000	5,300
35 - 44	541,000	370,000	4,996	11,734,000	8,239,000	4,971
45 - 54	504,000	325,000	5,991	12,143,000	8,477,000	5,209
55 - 64	420,000	292,000	3,913	10,468,000	7,673,000	4,061
65 and older	466,000	423,000	2,787	12,791,000	11,746,000	2,643
TOTAL	3,639,000	2,589,000	3,550	85,183,000	62,413,000	3,462

SOURCE: Bureau of the Census, Census of Population: 1950, vol. 2, Characteristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1953), Table 139, and Part 22 Michigan (Washington, D.C.: U.S. Government Printing Office, 1952), Table 89; Census of Population: 1960, vol. 1, Characteristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1964), Table 219, and Part 24, Michigan (Washington, D.C.: U.S. Government Printing Office, 1963), Table 134; 1970 Census of Population, vol. 1, Characteristics of the Population, Part 1, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), and Part 24, Michigan (Washington, D.C.: U.S. Government Printing Office, 1973), Table 193; and Current Population Reports, Consumer Income, Series P-60, Number 111 (Washington, D.C.: U.S. Government Printing Office, 1978) Tables 1B and 7B.

a. Median income for 1949, 1959, 1969, and 1975, respectively.

TABLE V-24. PREVIOUS YEAR'S MEDIAN MONEY INCOME OF YEAR-ROUND FULL-TIME WORKERS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, MICHIGAN, AND THE UNITED STATES, BY SEX AND RACE: SPRING 1976

Area	Men		Women	
	College graduates	Total	College graduates	Total
Detroit SMSA	20,024	15,257	12,938	9,302
Michigan	18,802	14,157	12,292	8,652
United States	17,891	12,770	10,861	7,531
		White		
Detroit SMSA	n.a.	n.a.	n.a.	n.a.
Michigan	n.a.	14,307	n.a.	8,571
United States	n.a.	13,068	n.a.	7,560
		Black		
Detroit SMSA	n.a.	n.a.	n.a.	n.a.
Michigan	n.a.	12,758	n.a.	8,811
United States	n.a.	9,625	n.a.	7,243

SOURCE: Bureau of Labor Statistics, Work Experience and Earnings in 1975 by State and Area, Report 536 (Washington, D.C.: 1978), Tables 5,6, and 7.

TABLE V-25. GROSS AND SPENDABLE WEEKLY EARNINGS OF PRODUCTION OR NONSUPERVISORY WORKERS IN MANUFACTURING, CONSTRUCTION, AND RETAIL TRADE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, ANNUAL AVERAGES: 1970-1978

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978
Manufacturing									
Gross average hourly earnings	$ 4.38	$ 4.80	$ 5.28	$ 5.58	$ 6.01	$ 6.52	$ 7.23	$ 8.04	$ 8.76
Average weekly hours	41.4	41.1	43.5	44.6	42.0	40.9	42.9	43.5	43.5
Gross average weekly earnings									
Current dollars	181	197	229	249	252	267	310	350	381
1967 dollars (real gross)	154	162	182	185	169	167	184	194	196
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	152	166	192	204	205	217	250	280	301
1967 dollars (real spendable)	129	136	152	152	138	136	148	155	155
Worker with no dependents									
Current dollars (after tax pay)	138	152	175	186	187	196	228	251	268
1967 dollars (real spendable)	118	125	139	139	125	123	135	139	138
Construction									
Gross average hourly earnings	$ 7.47	$ 8.13	$ 8.59	$ 9.12	$ 9.50	$10.10	$10.60	$11.51	$12.35
Average weekly hours	36.6	36.1	36.0	36.8	36.2	35.3	36.3	35.4	37.7
Gross average weekly earnings									
Current dollars	274	293	309	336	344	356	384	407	466
1967 dollars (real gross)	233	241	245	250	231	223	228	226	240
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	223	239	252	268	272	279	304	321	359
1967 dollars (real spendable)	190	197	200	200	183	174	180	178	185
Worker with no dependents									
Current dollars (after tax pay)	n.a.	n.a.	n.a.	245	248	254	275	287	319
1967 dollars (real spendable)	n.a.	n.a.	n.a.	182	167	159	163	159	164

TABLE V-25. GROSS AND SPENDABLE WEEKLY EARNINGS OF PRODUCTION OR NONSUPERVISORY WORKERS IN MANUFACTURING, CONSTRUCTION, AND RETAIL TRADE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, ANNUAL AVERAGES: 1970-1978 (cont.)

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978
				Retail trade[a]					
Gross average hourly earnings	$ 2.96	$ 3.38	$ 3.55	$ 3.67	$ 3.79	$ 4.10	$ 4.34	$ 4.59	$ 5.01
Average weekly hours	34.1	34.0	35.3	35.7	34.0	33.7	33.9	33.4	31.5
Gross average weekly earnings									
Current dollars	101	115	125	131	129	138	147	153	158
1967 dollars (real gross)	86	95	96	97	86	86	87	85	81
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	90	102	111	115	114	121	133	140	143
1967 dollars (real spendable)	76	84	88	85	76	76	79	78	74
Worker with no dependents									
Current dollars (after tax pay)	80	92	96	103	101	108	117	123	126
1967 dollars (real spendable)	68	75	79	77	68	67	69	68	65

SOURCE: Bureau of Labor Statistics, North Central Region, Real Earnings, Detroit, March 1979.

a. Except eating and drinking places.

n.a.: not available.

TABLE V-26. AVERAGE (MEAN) HOURLY EARNINGS IN SELECTED MICHIGAN AREAS, BY SELECTED OCCUPATION: 1978

Occupation	Alpena, Standish, and Tawas City (July)	Ann Arbor (October)	Battle Creek (June)	Detroit (March)	Saginaw (November)	Upper Peninsula (June)
Secretaries						
Class A	$ n.a.	$ 8.02	$ 7.75	$ 8.01	$ n.a.	$ n.a.
Class B	n.a.	6.88	7.02	7.53	7.33	5.28
Class C	6.43	6.21	6.38	7.14	7.84	5.28
Class D	n.a.	6.02	6.30	5.97	6.29	4.27
Class E	n.a.	5.61	4.79	n.a.	n.a.	n.a.
Total	6.43	6.36	6.31	7.01	7.53	4.92
Stenographers	5.94	4.80	5.99	5.75	5.50	5.50
Typists						
Class A	n.a.	5.71	4.89	5.65	5.43	n.a.
Class B	5.71	3.99	3.56	3.96	3.65	n.a.
Total	n.a.	4.37	4.06	4.64	4.08	n.a.
File clerks						
Class A	n.a.	n.a.	n.a.	4.70	n.a.	n.a.
Class B	n.a.	n.a.	n.a.	4.15	n.a.	n.a.
Class C	n.a.	3.50	3.69	3.32	n.a.	n.a.
Total	n.a.	3.52	3.70	3.71	3.74	n.a.
Switchboard operators	n.a.	4.45	4.73	4.92	4.19	n.a.
Keypunch operators						
Class A	n.a.	5.86	4.53	5.35	n.a.	6.67
Class B	n.a.	4.71	4.70	4.54	4.61	3.73
Total	5.58	5.10	4.66	4.87	5.20	5.20
Computer operators						
Class A	n.a.	7.71	n.a.	8.20	n.a.	6.06
Class B	n.a.	5.74	6.09	6.82	7.54	n.a.
Class C	n.a.	4.83	4.90	5.76	n.a.	n.a.
Total	n.a.	5.69	5.80	6.94	7.83	6.11
Drafters						
Class A	n.a.	8.69	7.69	11.15	n.a.	n.a.
Class B	n.a.	7.48	6.73	8.55	7.05	5.70
Class C	n.a.	6.36	5.71	7.21	5.71	n.a.
Tracers	n.a.	4.97	n.a.	5.88	n.a.	n.a.
Total	n.a.	7.09	6.67	9.66	6.69	5.67
Electronics technicians						
Class A	n.a.	8.55	n.a.	10.09	n.a.	n.a.
Class B	n.a.	6.20	n.a.	8.79	n.a.	n.a.
Class C	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	n.a.	6.62	8.74	8.91	n.a.	n.a.
Maintenance carpenters	n.a.	n.a.	n.a.	9.02	n.a.	7.23
Maintenance electricians	7.55	9.92	8.53	9.35	n.a.	7.54
Maintenance painters	n.a.	n.a.	8.70	9.10	n.a.	n.a.
Maintenance machinists	n.a.	8.79	n.a.	9.01	n.a.	7.10

TABLE V-26. AVERAGE (MEAN) HOURLY EARNINGS IN SELECTED MICHIGAN AREAS, BY SELECTED OCCUPATION: 1978 (cont.)

Occupation	Alpena, Standish, and Tawas City (July)	Ann Arbor (October)	Battle Creek (June)	Detroit (March)	Saginaw (November)	Upper Peninsula (June)
Maintenance mechanics						
Machinery	$7.50	$9.71	$8.05	$9.02	$ n.a.	$7.15
Motor vehicle	7.96	9.02	8.20	8.81	n.a.	7.92
Maintenance pipefitters	n.a.	9.87	8.73	9.15	n.a.	n.a.
Maintenance sheet metal workers	n.a.	n.a.	n.a.	9.12	n.a.	n.a.
Millwrights	n.a.	n.a.	n.a.	9.19	n.a.	n.a.
Maintenance trade helpers	n.a.	n.a.	n.a.	7.53	n.a.	n.a.
Machine tool operators (toolroom)	n.a.	n.a.	n.a.	9.35	n.a.	n.a.
Tool and die makers	n.a.	9.83	8.39	9.31	n.a.	n.a.
Stationary engineers	n.a.	10.01	7.66	8.92	n.a.	n.a.
Boiler tenders	n.a.	n.a.	7.81	n.a.	n.a.	6.28
Truck drivers						
Light truck	n.a.	4.05	n.a.	6.01	n.a.	n.a.
Medium truck	6.02	6.94	7.35	7.41	n.a.	n.a.
Heavy truck	n.a.	n.a.	5.23	8.19	n.a.	n.a.
Tractor trailer	8.17	n.a.	8.04	8.29	n.a.	n.a.
Total	7.45	7.57	6.82	7.86	7.31	7.40
Shipping clerks	n.a.	n.a.	n.a.	7.67	n.a.	n.a.
Receiving clerks	n.a.	n.a.	n.a.	6.12	n.a.	n.a.
Warehousemen	n.a.	n.a.	n.a.	6.78	6.40	n.a.
Order fillers	n.a.	n.a.	n.a.	7.00	n.a.	n.a.
Shipping packers	n.a.	6.30	5.56	6.73	n.a.	n.a.
Material handling laborers	5.62	5.68	7.77	7.19	7.61	5.24
Forklift operators	6.32	7.98	6.91	7.40	n.a.	5.45
Guards and watchmen	n.a.	n.a.	7.55	5.41	6.11	5.48
Janitors, porters, and cleaners	n.a.	6.07	6.40	5.49	6.88	4.35

SOURCE: Bureau of Labor Statistics, Occupational Earnings in Selected Areas, 1978, no. 1 of 3 (33 areas) (Washington, D.C.: 1979), Table 1; Area Wage Survey, Ann Arbor, Mich. October 1978 (Washington, D.C.: 1979), Table 1; and Area Wage Survey Detroit, Michigan, Metropolitan Area, March 1978 (Washington, D.C.: 1979), Tables A-1, A-2, and A-5.

n.a.: not available.

TABLE V-27. RECORDABLE OCCUPATIONAL INJURY AND ILLNESS RATES. PRIVATE SECTOR, IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975

(Incidence rates per 100 full-time workers)

Industry	Michigan			United States		
	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases
Agriculture, forestry, and fisheries	n.a.	n.a.	n.a.	3.7	4.7	8.5
Agricultural production	n.a.	n.a.	n.a.	3.5	4.3	7.9
Agricultural services and hunting	n.a.	n.a.	n.a.	4.5	6.0	10.6
Contract construction	5.2	9.4	14.6	5.5	10.5	16.0
General bldg contractors	5.5	9.4	15.0	5.2	10.9	16.1
Heavy const contractors	5.9	12.5	18.4	6.0	10.6	14.8
Special trade contractors	4.8	8.8	13.6	5.5	10.2	15.7
Manufacturing	5.0	8.9	13.9	4.5	8.5	13.0
Durable goods	n.a.	n.a.	n.a.	4.8	9.3	14.1
Lumber and wood products	8.0	9.2	17.3	8.5	11.8	20.4
Furniture and fixtures	4.7	9.7	14.4	5.1	10.9	16.1
Stone, clay, glass products	6.6	10.2	16.8	5.8	10.1	15.9
Primary metal industries	8.0	12.0	20.1	6.3	10.9	17.3
Fabricated metal products	6.1	12.0	18.1	6.5	12.6	19.1
Machinery, except electrical	4.3	9.7	14.1	4.6	10.3	14.9
Electrical equipment and supplies	5.3	8.1	13.4	2.5	6.0	8.5
Transportation equipment	4.3	7.5	11.8	4.7	8.6	13.3
Instruments and related products	2.7	6.5	9.2	2.2	4.9	7.1
Miscellaneous manufacturing industries	4.8	8.6	13.4	3.6	7.8	11.5

TABLE V-27. RECORDABLE OCCUPATIONAL INJURY AND ILLNESS RATES, PRIVATE SECTOR, IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

(Incidence rates per 100 full-time workers)

Industry	Michigan			United States		
	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases
Manufacturing (cont.)						
Nondurable goods	n.a.	n.a.	n.a.	4.0	7.3	11.4
Food and kindred products	6.9	12.3	19.2	7.3	10.9	18.2
Apparel and other textile products	2.5	4.1	6.5	1.6	4.3	5.9
Paper and allied products	4.4	8.4	12.9	4.1	9.2	13.4
Printing and publishing	2.6	3.7	6.3	2.4	4.3	6.7
Chemicals and allied products	3.2	6.0	9.2	2.8	5.5	8.3
Rubber and plastic products N.E.C.	6.0	8.9	15.0	6.9	9.1	16.0
Transportation and public utilities	5.3	5.4	10.8	4.6	4.8	9.4
Local, interurban passenger transit	n.a.	n.a.	n.a.	4.3	4.2	8.6
Trucking and warehousing	7.8	9.1	17.0	7.5	7.3	14.8
Communication	2.2	2.0	4.2	1.5	1.5	3.0
Electric, gas, and sanitary services	6.7	5.8	12.5	3.7	5.7	9.5
Wholesale and retail trade	2.2	4.4	6.6	2.6	4.7	7.3
Wholesale trade	2.9	5.1	7.9	3.2	4.8	8.0
Building materials and farm equipment	2.1	3.4	5.5	3.6	6.1	9.7
Retail general merchandise	2.8	6.4	9.2	2.5	4.9	7.4
Food stores	2.8	5.4	8.2	3.5	6.7	10.2
Automotive dealers and service stations	2.2	5.4	7.6	2.5	5.7	8.2

TABLE V-27. RECORDABLE OCCUPATIONAL INJURY AND ILLNESS RATES, PRIVATE SECTOR, IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

(Incidence rates per 100 full-time workers)

Industry	Michigan			United States		
	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases
Wholesale and retail trade (cont.)						
Apparel and accessory store	.8	1.5	2.3	.6	1.3	1.9
Furniture and home furnishings stores	1.5	2.4	3.9	1.9	2.9	4.8
Eating and drinking places	1.4	3.4	4.8	2.3	4.5	6.8
Miscellaneous retail stores	1.1	1.4	2.6	1.4	2.2	3.6
Finance, insurance, and real estate	.6	.9	1.5	.8	1.4	2.2
Banking	.6	.9	1.6	.6	1.2	1.8
Credit agencies other than banks	.3	.4	.7	.3	.7	1.0
Insurance carriers	.6	.9	1.5	.6	1.1	1.7
Real estate	1.1	1.9	3.0	2.1	3.3	5.4
Services	1.9	3.0	4.9	2.0	3.4	5.4
Hotels, other lodging places	1.7	4.3	5.9	2.5	5.3	7.9
Personal services	1.1	1.8	2.9	1.3	2.0	3.3
Miscellaneous business	1.9	3.2	5.1	2.1	3.1	5.2
Auto repair, services, garages	2.8	4.3	7.1	3.3	5.4	8.7
Miscellaneous repair	2.8	4.4	7.2	3.7	6.1	9.8
Amusement, recreation services, N.E.C.	2.4	2.7	5.0	2.7	5.6	8.3
Medical, other health serv	2.4	3.6	6.0	2.5	4.3	6.8

TABLE V-27. RECORDABLE OCCUPATIONAL INJURY AND ILLNESS RATES, PRIVATE SECTOR, IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

(Incidence rates per 100 full-time workers)

Industry	Michigan			United States		
	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases	Lost workday cases	Nonfatal cases without lost workdays	Total recordable cases
Services (cont.)						
Educational services	n.a.	n.a.	n.a.	1.4	2.1	3.5
Nonprofit membership organizations	1.6	2.0	3.6	1.4	2.2	3.6
Miscellaneous services	.5	1.0	1.6	.7	1.5	2.3
TOTAL	3.6	6.1	9.7	3.3	5.8	9.1

SOURCES: Bureau of Labor Statistics, Occupational Injuries and Illnesses in the United States, by Industry, 1975 Bulletin 1981 (Washington, D.C.: 1978), Table 1; and Bureau of Labor Statistics, State Data, on Occupational Injuries and Illnesses in 1975 (Washington, D.C.: 1978), Table 23.

a. Less than .05.

N.E.C.: not elsewhere classified.

n.a.: not available.

TABLE V-29. CETA (COMPREHENSIVE EMPLOYMENT AND TRAINING ACT) PARTICIPANT SUMMARY: FISCAL YEAR 1978

Characteristic	Percentage of total			
	Title I	Title II	Title VI	Total
Sex				
Male	49	51	61	53
Female	51	49	39	47
Age				
18 and under	37	6	6	25
19 - 21	19	15	18	18
22 - 44	39	68	66	50
45 - 54	3	3	7	5
55 - 64	2	3	3	2
65 and over	(a)	(a)	(a)	(a)
Education				
8 or fewer years of schooling	10	2	4	7
9-11 years of schooling	41	9	20	32
High school graduate or equivalent	37	49	46	41
Post-high school	12	40	30	20
Family income				
On Aid to Families with Dependent Children	27	10	18	23
On other public assistance	9	4	7	8
Economically disadvantaged	79	53	75	76
Ethnic group				
White	55	78	73	63
Black	41	19	24	34
American Indian	1	1	1	1
Other	3	2	2	2
INA	(a)	(a)	(a)	(a)
Spanish language	4	2	2	4
Limited English-speaking ability	2	1	1	2
Migrant/seasonal farm family member	1	(a)	1	1
Veterans				
Vietnam era	3	6	8	5
Special	2	5	6	3
Disabled	(a)	1	1	1
Total	8	18	23	14
Handicapped	5	3	4	5
Full-time student	32	4	4	20
Offender	10	2	6	8
Labor force				
Underemployed	4	5	3	3
Unemployed	69	78	84	75
Other	27	17	13	22
Unemployment insurance claimant	5	18	19	11
Total clients (number)	79,787	8,778	45,048	133,613

SOURCE: Michigan Department of Labor, Bureau of Employment and Training, 1978 Michigan CETA Activity Report for October 1, 1977 through September 30, 1978 (Lansing: 1979), Table XV.

NOTE: The number in parentheses refers to actual data counts when a given characteristic represents less than one percent of the total.

a. Less than 1%.

TABLE V-30. ESTIMATES OF WORKMEN'S COMPENSATION PAYMENTS IN MICHIGAN, BY TYPE OF INSURANCE: 1967-1977

(In thousands of dollars)

Year	Insurance losses paid by private insurance carriers	State and federal fund disbursements	Self-insurance payments	Total
1967	68,859	4,070	43,390	116,319
1968	80,602	5,691	51,345	137,638
1969	94,226	6,420	59,885	160,531
1970	105,090	6,646	66,485	178,221
1971	119,700	8,033	76,000	203,733
1972	140,677	8,362	93,745	242,784
1973	158,141	9,759	105,620	273,530
1974	180,536	10,845	120,400	311,781
1975	193,410	11,500	128,800	333,710
1976	222,754	16,975	151,000	390,729
1977	252,569	14,116	168,000	434,685

SOURCE: Social Security Administration, Social Security Bulletin, January 1966 through January 1977 (Washington, D.C.: monthly), vol. 40, no. 1 (January 1977): 35, and vol. 41, no. 3 (March 1978): 33; and preliminary unpublished data for 1977 which will appear late in 1979.

TABLE V-31. NUMBER OF MINERS, MINERS' WIDOWS, AND MINERS' DEPENDENTS RECEIVING BLACK LUNG BENEFITS, AND MONTHLY AMOUNT, MICHIGAN AND THE UNITED STATES: DECEMBER 1972-1977

Year	Number			Monthly amount ($000)	
	Miners	Widows	Dependents	Miners	Widows
			Michigan		
1972	893	1,104	890	201.5	185.4
1973	1,755	1,796	1,787	445.0	333.0
1974	1,839	2,063	1,842	496.0	401.0
1975	1,740	2,139	1,775	497.0	439.0
1976	1,655	2,210	1,602	491.0	472.0
1977	1,531	2,273	1,506	485.0	521.0
			United States		
1972	101,802	88,067	109,094	22,920.0	14,940.0
1973	159,837	124,154	177,500	40,400.0	23,300.0
1974	169,097	134,700	183,419	45,100.0	26,400.0
1975	165,405	139,407	177,409	46,600.0	28,900.0
1976	158,087	142,495	169,073	46,500.0	30,800.0
1977	148,720	144,543	164,136	47,100.0	33,400.0

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1978 (Washington, D.C.: monthly), vol. 40, no. 6 (June 1978): Table Q-32.

TABLE V-32. CHRONOLOGY OF THE MINIMUM WAGE, MICHIGAN AND THE UNITED STATES

Effective date	Minimum[a] Michigan	Minimum[a] United States	Effective date	Minimum[a] Michigan	Minimum[a] United States
24 October 1938	$ --	$ .25	1 February 1968	$ --	$ 1.60
24 October 1939	--	.30	1 July 1970	1.45	--
24 October 1945	--	.40	1 July 1971	1.60	--
25 January 1950	--	.75	1 May 1974	--	2.00
1 March 1956	--	1.00	1 January 1975	--	2.10
3 September 1961	--	1.15	1 April 1975	2.00	--
3 September 1963	--	1.25	1 January 1976	2.20	2.30
1 January 1965	1.00	--	1 January 1977	2.30	--
1 January 1966	1.15	--	1 January 1978	2.65	2.65
1 January 1967	1.25	--	1 January 1979	2.90	2.90
1 February 1967	--	1.40	1 January 1980	3.10	3.10
			1 January 1981	3.35	3.35

SOURCE: Public and Local Acts of the Legislature of the State of Michigan; and United States Code.

a. The original U.S. act applied to employees engaged directly in interstate commerce or to those producing goods for interstate commerce. Coverage has been expanded since then, at first not necessarily at the minimums indicated in this table. For example, the minimum wage for covered domestics initially was lower than indicated here, rising to $2.30 on 1 January 1977.

TABLE V-33. EMPLOYMENT PROJECTIONS, BY MAJOR OCCUPATIONAL CLASSIFICATIONS: 1974-1975

Occupation	Employment		Employment change 1974-75	
	1974	Projected 1985	Number	Percentage
White collar				
Professional, technical	494,652	597,295	102,643	20.8
Managers	313,221	358,553	45,332	14.5
Sales	204,028	222,759	18,731	9.2
Clerical	594,745	735,942	141,197	23.7
Total	1,606,646	1,914,549	307,903	19.2
Blue collar				
Crafts	508,084	554,665	46,581	9.2
Operative, except transport	539,909	560,434	20,525	3.8
Transport operatives	133,053	139,391	6,338	4.8
Nonfarm labor	163,207	170,359	7,152	4.4
Total	1,344,253	1,424,849	80,596	6.0
Service				
Service, except private household	443,594	582,821	139,227	31.4
Private household	31,483	22,576	-8,907	-28.3
Total	475,077	605,397	130,320	27.4
Farm	61,772	37,465	-24,307	-39.3
Total, all occupations	3,487,748	3,982,260	494,512	14.2

SOURCE: Michigan Employment Security Commission, special release.

VI. INCOME AND COST OF LIVING

In the period after World War II, Michigan's economy was strongest in 1953, at the peak of production of wheeled vehicles for military action in Korea. Per capita income in this state was almost 20 percent above the national average. After the 1954 recession, the economy rebounded on the strength of pent-up civilian demand for motor vehicles, then began a long slide culminating in the recession of 1961, when per capita income here was barely above the national average. There was a resurgence during the mid-1960s. In 1965, Michigan's per capita personal income stood about 10 percent above the national average. The source of this buoyancy was high level demand for durable goods generally, particularly automobiles. The Michigan economy turned sluggish after 1966. By 1975, per capita income here was about 2 percent above the national average, roughly the same as the 1961 spread. Between 1975 and 1977, Michigan residents recovered much of the loss. There was some slippage in 1978 as a result of slowing growth, particularly in durable goods manufacturing.

County and state estimates of labor and proprietors' earnings are developed by the Bureau of Economic Analysis, a division of the U.S. Department of Commerce, Washington, D.C. The figures are based primarily on employer reports filed in conjunction with state government unemployment insurance programs. Labor and proprietors' earnings, the most comprehensive yardstick of economic activity for counties that is available on an annual basis, consists of wages, salaries, and fringe benefits of private sector and government employees plus proprietors' earnings in unincorporated businesses in the private sector. The yardstick is deficient in that depreciation, corporate profits, and several other items that are part of total economic output at the national level are not included. That cannot be helped, however, because there is no suitable means for allocating corporate profits, and so forth, among states and counties. In the government sector, the totals include the pay of civilian and military personnel. Also included in that sector are publicly controlled institutions of education, such as state universities and community colleges. The 1977 data are fresh from the Bureau of Economic Analysis. Those for 1978 will become available in March or April 1980. The publication lag is due to the logistics of collecting and editing the figures from records compiled by several government agencies that administer various programs.

Between 1976 and 1977, among the major economic sectors, the greatest percentage gain occurred in construction (see Table VI-3). However, building activity accounts for less than 5 percent of earnings in the state, so that sector has little direct effect on total growth for the year, although its indirect impact is felt in the lumber industry, among others. Also, construction activity represents long-term investment. In fact, in Kalkaska County, where construction accounted for nearly 20 percent of total earnings, much of it consisted of industrial and mercantile building in a boom based on an abundance of petroleum and natural gas. Labor and proprietors' earnings, by county, for the construction industry are shown in Table XIV-4 in the construction chapter.

Manufacturing, while second to construction in earnings growth between 1976 and 1977, is by far this state's most important economic sector. Genesee and Macomb counties scored high in percentage gain in manufacturing (see Table XV-15 in the manufacturing chapter). Both are heavily committed to that sector, as evidenced by the proportion of total earnings that originated there (see Table XV-14). The combination of favorable structure and favorable performance within that structure made these among the leaders in total earnings growth. Both are heavily

committed to automotive manufacturing, of course, which still was rebounding from the 1974-1975 recession, and these two counties were hard hit by the recession for the same reason. Saginaw County, farther down the list in terms of overall growth (see Table VI-12), falls in the same category of an area heavily dependent on motor vehicle manufacturing and performing well within that industry. Automotive dependence is also a factor in the fast growth of these three economies during the 1972-1977 period.

Manufacturing is not so dominant in Wexford County, accounting for about one-third of the total economy compared with more than one-half for Genesee, Macomb, and Saginaw counties; but in Wexford this sector grew at such a rapid rate that the area was third in total earnings growth between 1976 and 1977.

The county in which factory earnings are of least importance, Chippewa, tried hardest of all and still ranked last in change in total earnings. The paramount event in the Sault Ste. Marie area was the closing of Kincheloe Air Force Base. Federal military and civilian payrolls, which had accounted for 42 percent of total earnings in 1976, dropped by 25 percent.

Midland County is dominated by nondurable goods manufacturing, namely, Dow Chemical and Dow Corning. Growth in the chemical industry there has been steady but unspectacular; between 1976 and 1977 this county's entire manufacturing sector produced a modest 4 percent earnings gain compared with 18 percent for Michigan and 13 percent for the nation. The county has a disadvantage in some segments of the chemical industry because of the high cost of petrochemical feedstocks, as well as doubts about the availability of steam for processing the raw materials into finished products. Despite these handicaps, Midland experienced above-average growth in total earnings as a result of gains in construction, retail trade, and public utilities. Retail trade is grossly underrepresented, evidently because of the proximity of stores in Saginaw and Bay City (see Table XXI-5 in the retail trade chapter). This suggests prolonged, vigorous growth in this sector. The gain in public utilities earnings represents a resumption of construction activity at a Consumers Power Company nuclear plant which is intended to supply electricity to residents in Consumers Power territory and process steam for Dow Chemical. (Data on public utilities are not included in this edition of the Abstract because they cannot be separated from those for communications and transportation.)

In Leelanau County, the services sector is the most important component of the economy (see Table XXIII-4 in the services chapter). Moreover, services grew more rapidly in Michigan's "Little Finger" between 1976 and 1977 than in any other sector - so rapidly that Leelanau was the state's leader in total earnings growth. Leelanau hosts Interlochen Arts Academy, a world renowned private school that is classified in the services sector along with the health care industry, lodgings industry, entertainment, repair services, legal services, various business services, mortuaries, beauty salons, barber shops, and several minor categories. Leelanau also functions as a bedroom community for the Traverse City area and is a popular destination for summer tourists. Sleeping Bear Dunes National Lakeshore is located in the county.

Luce County had the state's most rapidly growing services sector (see Table XXIII-5). However, earnings in services accounted for a mere 5 to 10 percent of the total. Much the same is true of Keweenaw County, also in the U.P., which had the smallest economy in the state in terms of dollars of total earnings generated.

Oakland County was tenth in services growth between 1976 and 1977 (see Table

XXIII-5) and sixth in the relative importance of services in its economy (see Table XXIII-4). It ranked tenth in retail trade growth and twentieth in manufacturing growth. Retailing accounts for approximately 11 percent of total earnings, manufacturing for one-third, compared with 9 percent and 44 percent statewide. Oakland county was among the top twenty in earnings growth in transportation and public utilities; wholesale trade; and finance, insurance, and real estate between 1976 and 1977. (Data on wholesale trade are shown in Table XX-6 in the wholesale trade chapter, data on finance, insurance, and real estate are shown in Table XXII-6.) In short, Oakland has an exceptionally broad-based economy compared with most others in the Wolverine State, and an exceptional rate of growth in most of its economic sectors.

Much of the U.P. is dependent on metal mining, government employment, or forest industries, all of which fared poorly in most of that area between 1976 and 1977. Dickinson stands out as the county with the broadest base and the best overall performance.

Labor and proprietors' earnings may or may not remain in the county in which they originate, depending as they do on the residence of the workers who receive them. The residence adjustment is a statistical procedure developed by the Bureau of Economic Analysis to measure the net flow of labor and proprietors' earnings among counties. In Ontonagon County during 1977, for example, government and private enterprise generated approximately $47 million in earnings for workers and for farm and nonfarm proprietors. Workers in the county received approximately $30 million, some of which was earned in other Michigan counties and, perhaps, in other states; but most of it no doubt was derived from employment at the local copper mine and smelter. The difference between earnings paid by employers within the county and earnings received by residents of the county is the residence adjustment, about $16 million (one-third of the earnings generated) in the case of Ontonagon County. This can be thought of as net export of earnings or as net import of labor.

Ingham County ranks next to Ontonagon among labor importers in the state, primarily commuters from adjacent Eaton and Clinton counties. These two counties, in turn, rank first and second in the relative proportion of net labor exports. About 65 percent of labor and proprietors' earnings received by residents of these two counties was generated elsewhere, most, no doubt, in Ingham County. Residence adjustments for all Michigan counties are shown in Table VI-13.

During 1977, the federal Social Security Administration sent checks totaling $4.5 billion to Michigan residents under its retired worker, survivor, disability, and medical insurance programs. State unemployment insurance added $760 million to the income flowing to this state's households, and welfare programs added $1.2 billion. These and other programs in the public and private sector produced a total of $8.5 billion in 1977 payments to households for which no work or service was required. The importance of transfer payments to each of Michigan's 83 counties is shown in Tables VII-27, VII-28, and VII-29 in the chapter on social welfare.

Property income is comprised of dividends, interest, and rent received by households, that is, payments for the use of capital in one form or another. In the accounting system employed by the Bureau of Economic Analysis, rent includes, in addition to the rent received by households that lease to tenants, the imputed rental value of owner occupied housing. The latter is the estimated value that

homeowners pay themselves for living in their own home. The idea is to include the value of these services even though they do not entail a transaction between buyer and seller. There is also an imputed element in the value of interest received. It consists of the value of "free" services provided by banks to households that have checking accounts which earn no interest. All told, property income received by Michiganians amounted to $7.8 billion during 1977. The importance of property income to each county in the state is shown in Table VI-10.

The sum of property income, transfer payments, and earnings received by residents is total personal income, which for Michigan totaled $69.4 billion during 1977 (Table VI-7). This represents the amount available, before borrowing, to pay taxes and to purchase shelter, transportation, clothing, food, education, recreation, and other household items. Of this total, approximately 11 percent was property income; 12 percent, transfer payments; and 77 percent, labor and proprietors' earnings.

Among Michigan counties, Lake ranked first during 1977 in the proportion of personal income derived as transfer payments; Roscommon was second. However, for Lake County, transfers represent, by and large, a heavy dependence on public welfare, whereas in Roscommon, most of these dollars are received by retired persons drawing Social Security and benefits under private plans. Roscommon ranked first in the percentage of personal income derived from property ownership, signaling considerable affluence by way of income earning home ownerhsip and other income earning assets (see Table VI-10). For obvious reasons, counties having the largest proportions of senior citizens also are those that rank high in relative importance of property income.

Retirement and property incomes are much like tourism and travel dollars in that they represent markets for merchants and small businesses in those areas. Welfare payments, similarly, generate demand for goods and services; however, they also are a sign of a low level of economic opportunity or aspiration for a segment of the population.

Personal income per capita (Table VI-8), calculated by dividing total personal income by total population, generally is used as a measure of the general level of economic well-being, but, for the reasons just given, these averages must be interpreted with caution.

Oakland is by far the state's most affluent county, a result of high earnings per capita as well as high property income per capita. Transfer payments are relatively minor by national and statewide standards. Much the same is true of Washtenaw and Midland counties, although the level of affluence is considerably below that of Oakland. Genesee and Macomb have high per capita incomes on the basis of earnings alone; property income is not great in these two counties, nor is the transfer payments component. Wayne County has relatively high earnings and low property income. But the average level of transfer payments is well above the average for Michigan and the United States, a reflection of the high welfare caseload. This is the state's premier instance of great poverty amid great plenty.

Counties at the bottom of the ranking in per capita personal income are located in northern Michigan and are relatively undeveloped (see Table VI-9). Many attract relatively prosperous retirees who can afford to purchase houses there or who already own them, having occupied them as second homes during their working years. The residents of Oscoda and Roscommon, among others, are actually relatively affluent because of an accumulation of financial wealth.

Several counties have low average incomes due to genuine economic hardship. These include Chippewa and Ontonagon, strained by dislocations in their major industries, and Keweenaw, Alger, Lake, Missaukee, and Osceola, which have long histories of poverty.

Mecosta is low in average personal income because of the large student body at Ferris State College. Kalkaska is growing rapidly, which promises better days for its poor.

Whereas personal income is the current income of residents of an area from all sources, the money income data prepared by the Bureau of the Census (Tables VI-15 through VI-23) exclude imputed items such as the rental value of owner occupied housing and food grown and consumed on farms. Essentially, personal income is intended to be a broad measure of the welfare of residents, while money income is the cash flow. Neither, it should be emphasized, includes the value of savings accounts, stock ownership, and other accumulated wealth.

Federal revenue sharing with state and local units of government is based, in part, on per capita money income figures such as those shown in Tables VI-15 and VI-16. The document from which those data were extracted also includes per capita money income data for Michigan townships. The Bureau of the Census now is in the process of calculating 1977 per capita money income for all state and local governments in the country.

Poverty statistics for all of the subdivisions of states are available from the Census of Population: 1970 and nowhere else. Because those figures are so dated, they are not included in this edition of the Abstract. More recent poverty statistics for Michigan and the Detroit Standard Metropolitan Statistical Area were developed from the Survey of Income and Education, a limited sampling of households conducted in spring 1976. They are shown in Tables VI-23 and VI-24.

The poverty threshold is a multiple of the income needed to purchase an "economy" diet, one that just meets minimum standards of nutrition and diversity. Government studies have shown that for households with three or more individuals, the multiple is three, that is, one-third of the budget goes for food. In two-person households, food absorbs 27 percent of the minimum adequate budget, and for single individuals the ratio is even smaller.

Consumer price indexes are compiled by the Bureau of Labor Statistics. Essentially, these represent the change in the cost of purchasing a fixed market basket of goods and services. CPIs are calculated for a selection of cities in the country, including Detroit. The national index is produced separately on the basis of average prices of individual items nationally.

Cost of living comparisons may be effected through family budget studies conducted by the Bureau of Labor Statistics (Tables VI-27 and VI-28). The moderate family budget allows for "the maintenance of health and social well-being, the nurture of children, and participation in community activities."

It has been the custom of the Bureau of Labor Statistics to develop a new market basket of goods and services approximately every ten years. The market basket is the fixed quantity of each item used in the calculation of the CPI. A by-product of this periodic Consumer Expenditure Survey is data such as those shown in Table VI-30.

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TABLE VI-1. TOTAL AND PER CAPITA PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1948-1978

Year	Total income (millions of dollars)			Per capita income (dollars)		
	Michigan	United States	Percentage[a]	Michigan	United States	Percentage[a]
1948	9,691	208,876	4.64	1,560	1,430	109.1
1949	9,627	205,793	4.68	1,520	1,384	109.8
1950	10,915	226,197	4.83	1,704	1,496	113.9
1951	12,176	253,232	4.81	1,874	1,652	113.4
1952	13,050	269,769	4.84	1,962	1,733	113.2
1953	14,741	285,456	5.16	2,161	1,804	119.8
1954	14,354	287,607	4.99	2,031	1,785	113.8
1955	15,900	308,266	5.16	2,183	1,876	116.4
1956	16,529	330,479	5.00	2,214	1,975	112.1
1957	16,870	348,460	4.84	2,229	2,045	109.0
1958	16,520	356,956	4.63	2,155	2,050	105.1
1959	17,520	380,033	4.61	2,256	2,146	105.1
1960	18,225	396,086	4.60	2,326	2,201	105.7
1961	18,169	411,301	4.42	2,302	2,498	102.4
1962	19,450	436,894	4.45	2,452	2,353	104.2
1963	20,770	459,075	4.52	2,578	2,436	105.8
1964	22,768	491,341	4.63	2,781	2,572	108.1
1965	25,386	532,022	4.77	3,038	2,750	110.5
1966	27,723	579,158	4.79	3,257	2,963	109.9
1967	29,046	620,020	4.68	3,366	3,142	107.1
1968	32,097	677,786	4.74	3,691	3,401	108.5
1969	34,803	738,233	4.71	3,963	3,667	108.1
1970	35,955	793,485	4.53	4,041	3,893	103.8
1971	39,191	851,952	4.60	4,371	4,132	105.8
1972	43,432	935,463	4.64	4,804	4,493	106.9
1973	48,463	1,045,098	4.64	5,340	4,980	107.2
1974	51,690	1,147,257	4.51	5,670	5,428	104.5
1975	54,588	1,248,631	4.37	5,991	5,861	102.2
1976	61,653	1,373,153	4.49	6,766	6,396	105.8
1977	69,438	1,519,893	4.57	7,606	7,026	108.3
1978[p]	77,571	1,702,860	4.56	8,442	7,810	108.1

SOURCE: Bureau of Economic Analysis Regional Economics Information System.

a. Michigan as a percentage of the United States.

P: Preliminary.

TABLE VI-3. ANALYSIS OF THE LABOR AND PROPRIETORS' EARNINGS COMPONENT OF PERSONAL INCOME, BY INDUSTRIAL SECTOR, IN MICHIGAN AND THE UNITED STATES: 1972-1977

Sector	Earnings, 1977		Percentage change	
	Millions of dollars	Percentages	1972 to 1977	1976 to 1977
	Michigan			
Manufacturing	24,392	43.94	66	18
Nondurable goods	3,711	6.68	54	13
Durable goods	20,681	37.26	68	19
Services	7,510	13.53	65	14
Retail trade	4,951	8.92	43	10
Transportation and public utilities	2,961	5.33	52	12
Wholesale trade	2,760	4.97	41	11
Contract construction	2,554	4.60	28	23
Finance, insurance and real estate	2,057	3.71	52	13
Agriculture	564	1.02	23	18
Mining	272	.49	86	4
Other private sector	105	.19	51	8
State and local government[a]	6,280	11.31	51	8
Federal, civilian	899	1.62	46	3
Federal, military	205	.37	11	- 1
Total	55,510	100.00	56	14
	United States			
Manufacturing	305,747	26.25	56	13
Nondurable goods	110,133	9.46	50	10
Durable goods	195,614	16.79	60	14
Services	193,746	16.63	68	12
Retail trade	118,024	10.13	49	10
Transportation and public utilities	87,723	7.53	59	12
Wholesale trade	76,914	6.60	70	10
Contract construction	69,671	5.98	45	14
Finance, insurance and real estate	64,931	5.57	57	13
Agriculture	26,163	2.25	20	10
Mining	18,115	1.56	142	15
Other private sector	4,246	.36	68	9
State and local government[a]	132,255	11.35	57	8
Federal, civilian	48,180	4.14	47	7
Federal, military	19,035	1.63	18	4
Total	1,164,755	100.00	56	11

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Includes publicly controlled institutions of education and other educational institutions.

TABLE VI-5. QUARTERLY PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, SEASONALLY ADJUSTED ANNUAL RATES: 1948-1978

(In millions of dollars)

Year and quarter	Michigan	United States	Year and quarter	Michigan	United States
1948			1956		
First	9,374	201,994	First	16,225	322,244
Second	9,512	207,412	Second	16,264	327,793
Third	9,889	213,073	Third	16,510	332,324
Fourth	9,988	213,027	Fourth	17,116	339,554
1949			1957		
First	9,728	207,250	First	17,015	343,063
Second	9,530	205,701	Second	16,822	347,383
Third	9,790	204,660	Third	16,866	351,859
Fourth	9,461	205,562	Fourth	16,775	351,534
1950			1958		
First	10,043	219,377	First	16,403	350,598
Second	10,548	219,722	Second	16,182	352,220
Third	11,330	228,425	Third	16,790	358,997
Fourth	11,660	237,331	Fourth	16,707	365,938
1951			1959		
First	11,967	245,204	First	17,058	371,656
Second	12,233	252,077	Second	17,676	380,075
Third	12,200	255,254	Third	17,677	381,504
Fourth	12,303	260,394	Fourth	17,667	386,819
1952			1960		
First	12,574	262,155	First	18,325	391,283
Second	12,721	265,767	Second	18,270	396,358
Third	12,925	272,731	Third	18,262	397,958
Fourth	13,980	278,424	Fourth	18,045	398,746
1953			1961		
First	14,566	282,287	First	17,687	401,934
Second	14,840	286,310	Second	18,083	407,681
Third	14,882	286,578	Third	18,228	413,883
Fourth	14,677	286,648	Fourth	18,679	421,706
1954			1962		
First	14,291	285,494	First	18,897	427,936
Second	14,392	284,702	Second	19,313	435,195
Third	14,089	287,311	Third	19,595	439,672
Fourth	14,642	292,922	Fourth	19,997	444,773
1955			1963		
First	15,249	297,773	First	20,201	450,338
Second	15,848	305,088	Second	20,419	455,075
Third	16,085	312,400	Third	20,857	461,547
Fourth	16,417	317,802	Fourth	21,602	469,339

TABLE VI-5. QUARTERLY PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, SEASONALLY ADJUSTED ANNUAL RATES: 1948-1978 (cont.)

(In millions of dollars)

Year and quarter	Michigan	United States	Year and quarter	Michigan	United States
1964			1971		
First	22,022	478,015	First	38,065	827,995
Second	22,575	487,146	Second	38,998	847,514
Third	23,161	496,151	Third	39,355	857,893
Fourth	23,316	504,052	Fourth	40,345	874,406
1965			1972		
First	24,338	514,523	First	41,932	905,060
Second	25,056	524,704	Second	42,909	920,203
Third	25,471	538,353	Third	43,666	941,186
Fourth	26,681	550,507	Fourth	45,220	975,403
1966			1973		
First	26,815	562,317	First	47,108	1,004,828
Second	27,375	572,752	Second	48,114	1,031,131
Third	28,078	585,057	Third	50,305	1,066,790
Fourth	28,624	596,505	Fourth	51,826	1,099,630
1967			1974		
First	28,466	605,965	First	51,300	1,107,391
Second	28,747	613,279	Second	52,539	1,137,933
Third	29,594	625,139	Third	54,858	1,171,724
Fourth	29,376	635,696	Fourth	55,277	1,189,836
1968			1975		
First	31,001	652,890	First	52,212	1,197,357
Second	31,679	670,441	Second	53,565	1,230,670
Third	32,389	686,839	Third	55,455	1,267,216
Fourth	33,321	700,974	Fourth	57,093	1,298,542
1969			1976		
First	34,985	726,965	First	59,455	1,333,366
Second	35,674	743,953	Second	61,188	1,356,675
Third	36,440	759,986	Third	61,985	1,385,519
Fourth	37,126	774,796	Fourth	63,972	1,421,988
1970			1977		
First	36,475	786,609	First	66,769	1,462,670
Second	37,552	807,993	Second	68,972	1,498,650
Third	37,791	816,677	Third	70,789	1,532,619
Fourth	36,813	821,614	Fourth	71,635	1,583,508
			1978		
			First	74,682	1,624,665
			Second	76,589	1,677,971
			Third	77,618	1,726,286
			Fourth	81,397	1,782,519

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-6. TOTAL AND PER CAPITA PERSONAL INCOME IN MICHIGAN'S STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1977

Area	1972	1973	1974	1975	1976	1977
			Per capita personal income (dollars)			
Ann Arbor	4,998	5,591	5,724	6,415	7,187	8,081
Battle Creek	4,547	4,981	5,288	5,780	6,488	7,057
Bay City	4,137	4,599	5,069	5,385	6,161	6,969
Detroit	5,326	5,965	6,320	6,594	7,526	8,535
Flint	4,756	5,269	5,352	5,834	7,003	8,073
Grand Rapids	4,587	5,006	5,407	5,689	6,236	6,977
Jackson	4,598	5,134	5,426	5,801	6,272	6,822
Kalamazoo-Portage	4,397	4,938	5,419	5,868	6,424	7,073
Lansing-East Lansing	4,538	4,994	5,150	5,657	6,361	7,073
Muskegon-Norton Shores-Muskegon Heights	3,936	4,262	4,719	5,011	5,487	6,059
Saginaw	4,615	5,163	5,402	5,721	6,701	7,591
Toledo[a]	4,626	5,146	5,508	5,887	6,638	7,312
			Total personal income (millions of dollars)			
Ann Arbor	1,199.6	1,354.2	1,447.9	1,582.3	1,792.2	,021.8
Battle Creek	824.9	907.3	963.9	1,054.7	1,181.7	1,284.2
Bay City	492.5	550.4	609.8	646.3	738.9	837.9
Detroit	23,812.4	26,581.2	28,098.1	29,146.0	33,021.4	37,299.8
Flint	2,458.5	2,739.3	2,785.2	3,021.7	3,611.7	4,153.0
Grand Rapids	2,509.5	2,787.8	3,039.4	3,215.7	3,554.7	4,015.5
Jackson	662.6	741.7	793.2	852.3	922.9	1,023.0
Kalamazoo-Portage	1,153.3	1,285.5	1,420.9	1,544.5	1,702.2	1,896.0
Lansing-East Lansing	1,970.5	2,197.0	2,285.5	2,523.1	2,853.0	3,218.9
Muskegon-Norton Shores-Muskegon Heights	701.1	756.6	838.6	892.6	984.3	1,084.9
Saginaw	1,036.7	1,165.5	1,223.8	1,294.8	1,518.1	1,720.7
Toledo[a]	3,598.6	4,016.7	4,310.4	4,602.5	5,135.4	5,684.2

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, special release.

a. Monroe County, Michigan, is included in the Toledo, Ohio-Michigan SMSA.

TABLE VI-2. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1972-1977

(Dollar figures in thousands)

	1972	1973	1974	1975	1976	1977
Labor and proprietors' earnings, by place of work[a]						
Michigan	35,592,512	40,225,450	41,726,198	42,304,121	48,571,145	55,509,630
United States	744,775,000	834,990,000	898,702,000	951,087,000	1,047,975,000	1,164,755,000
Percentage[b]	4.8	4.8	4.6	4.4	4.6	4.8
Social insurance contributions						
Michigan	1,469,401	1,928,927	2,071,770	2,120,714	2,369,731	2,680,799
United States	33,939,000	41,949,000	47,388,000	50,193,000	55,139,000	60,607,000
Percentage[b]	4.3	4.6	4.4	4.2	4.3	4.4
Residence adjustment						
Michigan	184,351	210,910	228,805	252,490	294,602	325,680
United States	- 224,000	- 236,000	- 250,000	- 269,000	- 145,029	- 202,687
Percentage[b]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net labor and proprietors' earnings, by place of residence						
Michigan	34,307,462	38,507,433	39,883,233	40,435,897	46,496,016	53,154,511
United States	710,612,000	792,805,000	851,064,000	900,625,000	992,690,971	1,103,945,313
Percentage[b]	4.8	4.9	4.7	4.5	4.7	4.8
Dividends, interest, and rent[c]						
Michigan	4,838,074	5,175,334	5,861,107	6,330,318	7,038,391	7,791,239
United States	120,752,000	133,407,000	155,367,000	169,840,000	186,728,000	207,301,000
Percentage[b]	4.0	3.9	3.8	3.7	3.8	3.8

TABLE VI-2. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1972-1977 (cont.)

(Dollar figures in thousands)

	1972	1973	1974	1975	1976	1977
			Transfer payments[d]			
Michigan	4,286,940	4,780,126	5,945,399	7,822,268	8,118,190	8,491,886
United States	104,099,000	118,886,000	140,826,000	178,166,000	193,915,000	208,824,000
Percentage[b]	4.1	4.0	4.2	4.4	4.2	4.1
			Personal income, by place of residence			
Michigan	43,432,476	48,462,893	51,689,739	54,588,483	61,652,597	69,437,636
United States	935,463,000	1,045,098,000	1,147,257,000	1,248,631,000	1,373,333,971	1,520,070,313
Percentage[b]	4.6	4.6	4.5	4.4	4.5	4.6

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. See Table VI-3 for details.

b. Michigan as a percentage of United States.

c. See Table VI-4 for detail.

d. See Table VII-2. for detail.

n.a.: not applicable.

TABLE VI-4. ANALYSIS OF THE DIVIDEND, INTEREST, AND RENT COMPONENT OF PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1972-1977

(Dollar figures in thousands)

Year		Dividends	Interest		Rent		Total
			Monetary	Imputed[a]	Monetary	Imputed[b]	
1972	Michigan	989,219	1,859,017	1,126,709	250,000	613,129	4,838,074
	United States	24,597,000	47,094,000	27,518,000	10,004,000	11,539,000	24,597,000
	Percentage[c]	4.0	4.0	4.1	2.5	5.3	19.7
1973	Michigan	1,028,826	1,094,370	1,255,899	231,104	565,135	5,175,334
	United States	27,792,000	53,830,000	30,221,000	11,116,000	10,448,000	27,792,000
	Percentage[c]	3.7	3.9	4.2	2.1	5.4	18.6
1974	Michigan	1,097,636	2,597,806	1,453,386	222,022	490,257	586,107
	United States	30,963,000	67,280,000	35,734,000	11,806,000	9,584,000	30,963,000
	Percentage[c]	3.5	3.9	4.1	1.9	5.1	18.9
1975	Michigan	1,142,627	2,806,658	1,611,817	195,543	573,673	6,330,318
	United States	31,885,000	74,704,000	40,825,000	10,885,000	11,541,000	31,885,000
	Percentage[c]	3.6	3.8	4.0	1.8	5.0	19.9
1976	Michigan	1,444,072	3,062,686	1,742,633	217,059	571,941	7,038,391
	United States	37,898,000	82,733,000	43,558,000	11,583,000	10,956,000	37,898,000
	Percentage[c]	3.8	3.7	4.0	1.9	5.2	18.6
1977	Michigan	1,667,466	3,398,119	1,981,210	251,566	492,878	7,791,239
	United States	43,651,000	91,917,000	49,244,000	13,420,000	9,069,000	43,651,000
	Percentage[c]	3.8	3.7	4.0	1.9	5.4	17.9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Value of financial services (mostly "free" checking accounts) rendered persons by banks and other financial institutions without charge plus income withheld by life insurance companies and mutual financial intermediaries on the account of persons, such as the addition of income to policy holder reserves held by life insurance companies.

b. Gross rental income imputed to nonfarm residents of owner-occupied nonfarm dwelling units less the normal expenses incurred in home ownership; that is, the net rent that nonrenters save from owning the homes they live in.

c. Michigan as a percentage of United States.

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Alcona	19.0	20.8	23.5	26.4	28.7	33.0	38.4	42.6
Alger	20.6	22.6	25.0	27.8	31.1	35.2	39.3	42.4
Allegan	207.9	223.1	255.6	287.8	314.2	334.8	372.9	421.6
Alpena	93.9	103.5	116.1	127.2	142.3	157.4	174.6	193.0
Antrim	36.9	40.6	46.9	53.7	61.9	68.6	75.4	86.3
Arenac	32.4	35.7	39.9	46.0	53.4	56.2	67.5	76.4
Baraga	23.3	25.1	28.3	28.8	31.1	35.6	39.5	42.6
Barry	123.2	134.4	152.6	169.1	179.6	195.7	220.9	238.6
Bay	415.4	461.8	492.5	550.4	609.8	646.3	738.9	837.9
Benzie	27.0	30.2	33.6	37.8	42.2	46.2	51.7	58.7
Berrien	639.8	687.9	774.2	852.8	924.7	957.9	1,025.4	1,146.7
Branch	116.0	132.5	146.6	168.0	175.7	196.1	216.2	247.0
Calhoun	558.7	611.8	672.3	738.2	784.2	859.0	960.8	1,045.7
Cass	151.2	164.7	191.0	216.8	222.9	238.3	268.0	299.2
Charlevoix	50.2	55.0	63.2	70.7	78.4	87.5	98.1	111.0
Cheboygan	48.9	53.4	60.1	67.0	73.7	83.4	93.1	103.2
Chippewa	92.1	102.2	112.0	126.0	137.8	154.7	170.7	171.3
Clare	45.7	50.2	57.5	63.4	72.9	83.1	94.4	109.4
Clinton	168.2	191.9	215.7	241.0	257.3	271.0	307.3	348.3
Crawford	19.4	18.7	21.9	26.0	29.8	37.4	40.4	44.5
Delta	110.5	116.6	128.6	142.8	162.5	178.1	203.1	216.5
Dickinson	78.1	95.0	94.8	105.1	121.9	134.8	150.1	166.5
Eaton	254.2	293.3	324.8	366.9	373.2	422.9	481.2	554.9
Emmet	63.1	71.0	79.1	88.2	98.7	109.0	121.8	135.8
Genesee	1,679.7	1,992.6	2,173.6	2,422.4	2,441.9	2,653.2	3,202.1	3,690.9

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Gladwin	38.9	42.2	47.6	53.1	61.1	66.3	74.3	83.4
Gogebic	63.3	67.0	73.2	80.2	89.8	97.9	104.6	108.9
Grand Traverse	148.7	164.9	185.2	209.5	234.6	257.2	287.4	327.1
Gratiot	130.6	143.7	165.9	185.1	209.8	209.6	230.8	252.8
Hillsdale	121.1	132.5	151.1	172.8	184.5	192.9	216.9	245.3
Houghton	93.7	101.3	107.8	118.9	131.9	148.4	165.8	180.2
Huron	110.1	115.9	133.2	159.5	190.5	183.2	196.8	216.8
Ingham	1,006.5	1,153.3	1,268.0	1,404.7	1,455.7	1,617.2	1,826.7	2,048.7
Ionia	131.9	143.0	162.0	184.4	199.2	212.0	237.8	267.0
Iosco	78.8	87.3	98.0	108.0	117.2	127.8	143.5	153.2
Iron	36.2	40.5	44.3	48.2	56.2	64.1	70.8	77.3
Isabella	121.1	133.1	151.0	168.5	195.6	201.5	226.9	251.8
Jackson	573.1	591.7	662.6	741.7	793.2	852.3	922.9	1,023.0
Kalamazoo	809.9	862.5	927.7	1,031.6	1,138.4	1,247.5	1,373.9	1,531.9
Kalkaska	15.4	15.8	18.6	22.3	28.3	37.6	44.4	51.2
Kent	1,613.5	1,737.5	1,927.4	2,133.0	2,329.3	2,460.8	2,711.7	3,044.8
Keweenaw	5.9	6.5	6.9	7.5	8.2	9.2	10.1	11.0
Lake	15.0	17.1	19.7	21.2	23.5	25.3	28.0	30.7
Lapeer	177.9	200.6	228.9	261.7	279.9	301.9	348.0	412.1
Leelanau	35.2	39.3	44.9	50.8	59.8	62.1	68.0	80.3
Lenawee	311.6	321.2	366.8	416.0	439.3	473.4	514.0	576.3
Livingston	215.6	240.4	278.7	331.7	373.5	410.7	493.1	576.7
Luce	20.0	22.3	24.4	26.6	29.9	34.9	38.3	42.1
Mackinac	27.4	30.3	34.0	37.7	41.2	46.4	51.4	56.6
Macomb	2,715.2	2,958.1	3,319.4	3,785.1	4,039.9	4,279.6	4,917.2	5,632.3

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Manistee	62.3	69.0	74.0	75.3	85.9	99.0	109.5	123.4
Marquette	202.9	220.5	247.5	278.3	311.1	351.9	394.2	422.2
Mason	68.1	80.8	88.2	88.1	103.6	108.1	120.0	132.7
Mecosta	66.8	72.5	83.0	92.5	104.4	116.3	125.8	139.8
Menominee	68.0	71.4	80.2	89.4	101.3	109.6	121.5	134.7
Midland	275.8	297.9	315.9	339.8	391.7	421.2	485.2	550.4
Missaukee	18.2	19.8	23.3	27.7	30.1	34.9	37.5	41.3
Monroe	437.7	475.1	542.1	616.9	651.9	701.8	782.3	888.1
Montcalm	129.8	141.1	151.4	169.0	196.7	207.7	227.6	253.6
Montmorency	14.1	15.9	18.7	21.7	25.2	27.8	31.4	35.8
Muskegon	556.8	569.4	638.4	687.3	757.2	808.1	891.2	979.9
Newaygo	86.3	92.9	104.0	113.8	121.3	133.0	148.0	161.5
Oakland	4,677.5	5,137.8	5,725.6	6,487.1	6,893.8	7,348.3	8,365.9	9,621.3
Oceana	52.9	56.8	62.7	69.3	81.3	84.5	93.0	105.0
Ogemaw	29.3	32.6	38.4	42.5	50.2	55.9	64.1	70.6
Ontonagon	31.0	31.8	37.1	41.3	44.7	51.7	49.9	51.5
Osceola	41.9	43.1	50.6	60.2	66.8	72.5	73.7	83.5
Oscoda	10.4	12.2	14.2	15.6	18.9	21.2	23.1	15.6
Otsego	31.4	35.3	41.6	48.6	54.1	63.0	72.4	83.2
Ottawa	477.5	512.1	582.1	654.8	710.2	754.8	843.0	970.7
Presque Isle	33.0	36.1	40.5	44.4	49.9	55.0	59.9	66.3
Roscommon	30.7	35.1	39.1	42.9	49.3	58.2	65.3	73.6
Saginaw	803.7	942.0	1,036.7	1,165.5	1,223.8	1,294.8	1,518.1	1,720.7
St. Clair	438.3	471.4	520.1	582.1	631.8	677.6	754.1	848.6
St. Joseph	173.7	186.9	212.0	241.8	248.9	276.0	306.1	340.0

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Sanilac	113.6	121.3	140.3	154.8	177.7	179.7	199.2	244.5
Schoolcraft	22.8	23.9	26.4	28.5	32.0	37.5	40.4	44.5
Shiawassee	225.9	251.1	284.8	316.9	343.3	368.5	409.6	462.1
Tuscola	160.2	178.1	202.0	233.0	270.8	267.6	309.1	347.0
Van Buren	186.4	200.4	225.5	253.9	282.6	297.0	328.2	364.0
Washtenaw	968.8	1,080.7	1,199.6	1,354.2	1,447.9	1,582.3	1,792.2	2,021.8
Wayne	11,709.8	12,520.1	13,739.8	15,133.4	15,879.2	16,127.9	18,143.2	20,208.8
Wexford	57.1	63.3	69.8	82.3	91.4	99.8	113.1	129.1
Michigan	35,954.7	39,190.6	43,432.5	48,462.9	51,689.7	54,588.5	61,652.6	69,437.6

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, special release.

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Alcona	2,632	2,741	2,898	3,185	3,392	3,852	4,353	4,778
Alger	2,414	2,671	3,000	3,237	3,534	3,881	4,171	4,326
Allegan	3,110	3,278	3,677	4,117	4,466	4,694	5,143	5,709
Alpena	3,040	3,265	3,628	3,940	4,391	4,762	5,271	5,749
Antrim	2,890	3,040	3,439	3,785	4,117	4,430	4,794	5,457
Arenac	2,877	3,063	3,312	3,739	4,192	3,275	5,098	5,615
Baraga	3,002	3,277	3,658	3,628	3,926	4,398	4,843	5,068
Barry	3,218	3,459	3,814	4,246	4,430	4,713	5,269	5,656
Bay	3,536	3,904	4,137	4,599	5,069	5,385	6,161	6,969
Benzie	3,142	3,525	3,812	4,022	4,339	4,639	4,996	5,584
Berrien	3,902	4,186	4,636	5,051	5,456	5,631	6,004	6,777
Branch	3,051	3,434	3,728	4,326	4,522	5,164	5,666	6,564
Calhoun	3,947	4,367	4,754	5,186	5,533	6,095	6,853	7,480
Cass	3,495	3,816	4,408	4,865	4,942	5,210	5,874	6,674
Charlevoix	3,014	3,206	3,685	3,933	4,323	4,702	5,134	5,693
Cheboygan	2,927	3,098	3,345	3,595	3,846	4,294	4,686	5,089
Chippewa	2,830	3,079	3,255	3,615	3,836	4,294	4,645	4,651
Clare	2,712	2,862	3,133	3,273	3,564	3,898	4,235	4,798
Clinton	3,467	3,945	4,443	4,791	4,999	5,159	5,830	6,387
Crawford	2,961	2,758	3,116	3,435	3,713	4,516	4,572	4,945
Delta	3,063	3,172	3,439	3,785	4,244	4,551	5,118	5,403
Dickinson	3,286	3,554	3,907	4,330	4,982	5,406	5,976	6,552
Eaton	3,675	4,174	4,541	4,965	4,983	5,448	6,221	6,970
Emmet	3,409	3,690	4,042	4,377	4,750	5,117	5,682	6,366
Genesee	3,766	4,443	4,818	5,349	5,402	5,912	7,169	8,296

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Gladwin	2,862	3,004	3,229	3,449	3,757	3,952	4,316	4,843
Gogebic	3,069	3,266	3,561	3,865	4,322	4,720	5,123	5,377
Grand Traverse	3,769	4,066	4,408	4,833	5,203	5,709	6,237	7,020
Gratiot	3,319	3,613	4,155	4,605	5,248	5,252	5,836	6,364
Hillsdale	3,242	3,470	3,883	4,415	4,629	4,804	5,371	6,044
Houghton	2,689	2,838	2,970	3,286	3,609	4,011	4,439	4,876
Huron	3,211	3,303	3,774	4,489	5,380	5,111	5,480	5,930
Ingham	3,851	4,384	4,760	5,230	5,389	6,026	6,764	7,532
Ionia	2,865	3,053	3,394	3,911	4,214	4,462	4,915	5,450
Iosco	3,125	3,292	3,555	3,871	4,130	4,491	4,928	5,000
Iron	2,624	2,966	3,179	3,499	4,050	4,507	4,880	5,326
Isabella	2,693	2,865	3,130	3,505	3,906	4,075	4,484	4,872
Jackson	4,002	4,132	4,598	5,134	5,426	5,801	6,272	6,822
Kalamazoo	4,021	4,289	4,579	5,152	5,646	6,192	6,762	7,428
Kalkaska	2,824	2,540	2,655	2,770	3,824	4,445	3,937	4,473
Kent	3,924	4,216	4,639	5,078	5,502	5,800	6,349	7,089
Keweenaw	2,536	2,605	3,012	3,359	3,815	4,159	4,308	4,143
Lake	2,609	2,773	3,068	3,256	3,540	3,728	4,075	4,340
Lapeer	3,375	3,700	4,141	4,558	4,650	4,891	5,521	6,392
Leelanau	3,240	3,493	3,849	4,223	4,890	4,987	5,353	6,124
Lenawee	3,798	3,893	4,395	4,903	5,106	5,481	5,956	6,752
Livingston	3,625	3,903	4,329	4,761	4,978	5,294	6,071	6,690
Luce	2,907	3,275	3,585	3,885	4,214	4,942	5,309	5,827
Mackinac	2,814	3,009	3,290	3,659	3,906	4,373	4,839	5,233
Macomb	4,323	4,651	5,188	5,777	6,085	6,415	7,309	8,210

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Manistee	3,039	3,279	3,497	3,543	4,071	4,578	5,017	5,629
Marquette	3,117	3,302	3,624	4,081	4,427	5,071	5,529	5,769
Mason	2,979	3,394	3,604	3,552	4,244	4,391	4,832	5,236
Mecosta	2,368	2,501	2,703	2,855	3,121	3,435	3,664	4,087
Menominee	2,758	2,867	3,211	3,569	4,061	4,307	4,761	5,163
Midland	4,313	4,599	4,861	5,155	5,902	6,234	7,137	7,913
Missaukee	2,502	2,516	3,022	3,480	3,610	3,960	4,126	4,376
Monroe	3,659	3,911	4,388	4,951	5,217	5,557	6,161	6,879
Montcalm	3,260	3,488	3,637	4,011	4,595	4,732	5,131	5,506
Montmorency	2,667	2,952	3,274	3,421	3,704	4,016	4,385	4,877
Muskegon	3,533	3,594	4,018	4,349	4,813	5,134	5,620	6,200
Newaygo	3,076	3,282	3,601	3,816	3,991	4,259	4,689	5,021
Oakland	5,143	5,603	6,193	6,881	7,198	7,614	8,616	9,776
Oceana	2,920	3,049	3,256	3,558	4,067	4,079	4,470	5,002
Ogemaw	2,449	2,663	3,011	3,139	3,518	3,752	4,232	4,751
Ontonagon	2,925	2,956	3,421	3,711	4,086	4,560	4,372	4,634
Osceola	2,788	2,717	3,058	3,639	3,965	4,205	4,142	4,526
Oscoda	2,179	2,502	2,730	2,768	3,181	3,466	4,735	3,984
Otsego	2,992	3,253	3,580	3,918	4,112	4,696	5,215	5,766
Ottawa	3,720	3,959	4,424	4,785	5,117	5,354	5,900	6,646
Presque Isle	2,559	2,767	3,057	3,225	3,621	3,966	4,275	4,727
Roscommon	3,041	3,233	3,394	3,318	3,613	4,011	4,319	4,676
Saginaw	3,647	4,222	4,615	5,163	5,402	5,721	6,701	7,591
St. Clair	3,643	3,784	4,109	4,567	4,893	5,219	5,780	6,447
St. Joseph	3,659	3,908	4,314	4,839	4,906	5,430	5,983	6,684

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN, BY COUNTY: 1970-1977 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977
Sanilac	3,214	3,363	3,801	4,083	4,611	4,612	5,058	5,778
Schoolcraft	2,758	2,851	3,138	3,347	3,806	4,348	4,548	4,987
Shiawassee	3,560	3,858	4,329	4,723	5,017	5,325	5,929	6,648
Tuscola	3,281	3,581	3,980	4,506	5,128	5,006	5,718	6,415
Van Buren	3,299	3,467	3,780	4,227	4,664	4,812	5,312	5,888
Washtenaw	4,136	4,599	4,998	5,591	5,724	6,415	7,187	8,081
Wayne	4,387	4,691	5,165	5,813	6,203	6,403	7,348	8,359
Wexford	2,884	3,143	3,378	3,854	4,249	4,546	5,123	5,774
Michigan	4,041	4,371	4,804	5,340	5,670	5,991	6,766	7,606

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, special release.

TABLE VI-9. PERCENTAGE CHANGE IN PER CAPITA PERSONAL INCOME, 1972-1977 AND 1976-1977, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA PERSONAL INCOME: 1977

County	Per capita personal income	Percentage change 1972 to 1977	Percentage change 1976 to 1977	County	Per capita personal income	Percentage change 1972 to 1977	Percentage change 1976 to 1977
Oakland	9,776	58	13	Charlevoix	5,693	54	11
Wayne	8,359	62	17	Manistee	5,659	62	13
Genesee	8,296	72	16	Barry	5,656	48	7
Macomb	8,210	58	12	Arenac	5,615	70	10
Washtenaw	8,081	62	12	Benzie	5,584	46	12
Midland	7,913	63	11	Montcalm	5,506	51	8
Saginaw	7,591	64	13	Antrim	5,457	59	14
Ingham	7,532	58	11	Ionia	5,450	61	11
Calhoun	7,480	57	9	Delta	5,403	57	6
Kalamazoo	7,428	62	10	Gogebic	5,377	51	5
Kent	7,089	53	12	Iron	5,326	68	9
Gr. Traverse	7,020	59	13	Mason	5,263	46	9
Eaton	6,970	53	12	Mackinaw	5,233	59	8
Bay	6,969	68	13	Menominee	5,163	61	8
Monroe	6,879	57	12	Cheboygan	5,089	52	9
Jackson	6,822	48	9	Baraga	5,068	39	5
Berrien	6,777	46	13	Newaygo	5,021	39	7
Lenawee	6,752	54	13	Oceana	5,002	54	12
Livingston	6,690	55	10	Iosco	5,000	41	1
St. Joseph	6,684	55	12	Schoolcraft	4,987	59	10
Cass	6,674	51	14	Crawford	4,945	59	8
Shiawassee	6,648	54	12	Montmorency	4,877	49	11
Ottawa	6,646	50	13	Houghton	4,876	64	10
Branch	6,564	76	16	Isabella	4,872	56	9
Dickinson	6,552	68	10	Gladwin	4,843	50	12
St. Clair	6,447	57	12	Clare	4,798	53	13
Tuscola	6,415	61	12	Alcona	4,778	65	10
Lapeer	6,392	54	16	Ogemaw	4,751	58	12
Clinton	6,387	54	10	Presque Isle	4,727	55	11
Emmet	6,366	57	12	Roscommon	4,676	38	8
Gratiot	6,364	53	9	Chippewa	4,651	43	0
Muskegon	6,200	54	10	Ontonagon	4,634	35	6
Leelanau	6,124	59	14	Osceola	4,526	48	9
Hillsdale	6,044	56	13	Kalkaska	4,473	68	14
Huron	5,930	57	8	Missaukee	4,376	45	6
Van Buren	5,888	56	11	Lake	4,340	41	7
Luce	5,827	63	10	Alger	4,326	44	4
Sanilac	5,778	52	14	Keweenaw	4,143	38	- 4
Wexford	5,774	71	13	Mecosta	4,087	51	12
Marquette	5,769	59	4	Oscoda	3,984	46	7
Otsego	5,766	61	11				
Alpena	5,749	58	9	Michigan	7,606	58	12
Allegan	5,709	55	11	United States	7,026	56	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-10. DIVIDENDS, INTEREST, AND RENT PER CAPITA, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO DIVIDENDS, INTEREST, AND RENT AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1977

County	Percent-age	Per capita	County	Percent-age	Per capita
Roscommon	23.3	$ 1092	Baraga	12.3	$ 626
Leelanau	22.2	1,358	Berrien	12.2	825
Alcona	20.1	961	Gladwin	12.2	590
Montmorency	19.8	968	Delta	12.1	652
Benzie	18.8	1,052	Bay	12.0	833
Oscoda	18.6	742	Allegan	11.9	680
Emmet	18.1	1,152	Washtenaw	11.9	964
Antrim	17.9	976	Hillsdale	11.9	718
Huron	17.6	1,041	Branch	11.8	775
Ogemaw	17.1	812	Ottawa	11.8	787
Cheboygan	16.8	853	Alpena	11.5	658
Houghton	16.2	786	Alger	11.5	499
Mackinaw	15.6	815	Livingston	11.3	759
Lake	15.5	669	Mecosta	11.3	462
Crawford	15.3	756	Cass	11.3	754
Charlevoix	15.1	861	Chippewa	11.3	524
Otsego	15.0	865	Gratiot	11.1	707
Presque Isle	14.9	704	Jackson	11.1	760
Oakland	14.8	1,443	Van Buren	11.0	649
Sanilac	14.7	849	Isabella	10.9	531
Grand Traverse	14.6	1,025	Kalkaska	10.9	487
Midland	14.5	1,150	Saginaw	10.7	815
Missaukee	14.3	626	Tuscola	10.7	688
Iosco	14.1	704	Calhoun	10.6	799
Newaygo	13.9	698	Muskegon	10.5	653
Mason	13.7	720	Montcalm	10.4	572
Manistee	13.7	774	Monroe	10.4	719
Oceana	13.5	675	Eaton	10.4	726
Keweenaw	13.4	567	Ionia	10.3	558
Gogebic	13.4	718	Clinton	10.2	654
Barry	13.4	755	Osceola	10.2	460
Schoolcraft	13.2	662	Ingham	10.1	760
Menominee	13.1	675	Shiawassee	10.0	664
St. Clair	12.9	833	Lapeer	9.8	624
Arenac	12.9	726	Wayne	9.6	799
Dickinson	12.9	847	Luce	9.6	562
Clare	12.8	615	Ontonagon	9.0	415
Kalamazoo	12.6	933	Macomb	9.0	737
St. Joseph	12.6	845	Marquette	8.9	537
Wexford	12.6	731	Genesee	8.8	733
Iron	12.5	666			
Kent	12.5	886	Michigan	11.2	853
Lenawee	12.3	826	United States	13.6	958

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-11. GROWTH IN TOTAL PERSONAL INCOME, 1972-1977, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN TOTAL PERSONAL INCOME: 1976-1977

County	Percentage change 1972 to 1977	Percentage change 1976 to 1977	County	Percentage change 1972 to 1977	Percentage change 1976 to 1977
Lapeer	80	18	Alcona	81	11
Leelanau	79	18	Alpena	66	11
Livingston	107	17	Cheboygan	71	11
Clare	90	16	Cickinson	76	11
Eaton	71	15	Emmet	72	11
Genesee	70	15	Isabella	67	11
Kalkaska	175	15	Jackson	54	11
Macomb	70	15	Mason	50	11
Oakland	68	15	Mecosta	68	11
Otsego	100	15	Menominee	68	11
Ottawa	67	15	Montcalm	68	11
Antrim	84	14	Oscoda	80	11
Benzie	75	14	Presque Isle	64	11
Branch	69	14	St. Joseph	60	11
Grand Traverse	77	14	Van Buren	61	11
Monroe	64	14	Wayne	47	11
Montmorency	91	14	Crawford	103	10
Wexford	85	14	Gratiot	52	10
Arenac	92	13	Huron	63	10
Allegan	65	13	Lake	56	10
Bay	70	13	Luce	72	10
Charlevoix	76	13	Mackinac	66	10
Clinton	61	13	Missaukee	77	10
Hillsdale	62	13	Muskegon	54	10
Manistee	67	13	Ogemaw	84	10
Midland	74	13	Schoolcraft	68	10
Oceana	67	13	Calhoun	56	9
Osceola	65	13	Houghton	67	9
Roscommon	88	13	Iron	74	9
Saginaw	66	13	Keweenaw	58	9
St. Clair	63	13	Newaygo	55	9
Sanilac	60	13	Alger	70	8
Shiawassee	62	13	Baraga	51	8
Washtenaw	69	13	Barry	56	8
Berrien	48	12	Delta	68	8
Cass	57	12	Iosco	56	7
Gladwin	75	12	Marquette	71	7
Ingham	62	12	Gogebic	49	4
Ionia	65	12	Ontonagon	39	3
Kalamazoo	65	12	Chippewa	53	0
Kent	58	12			
Lenawee	57	12	Michigan	60	13
Tuscola	72	12	United States	62	11

SOURCE: Bureau of Economic Analysis, REgional Economics Information System.

TABLE VI-12. GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED, 1972-1977, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED: 1976-1977

County	Percentage change 1972 to 1977	Percentage change 1976 to 1977	County	Percentage change 1972 to 1977	Percentage change 1976 to 1977
Leelanau	61	34	Sanilac	42	13
Kalkaska	304	21	Alpena	55	12
Wexford	80	20	Cheboygan	56	12
Oakland	76	20	Dickinson	75	12
Genesee	74	19	Jackson	48	12
Macomb	66	19	Lapeer	64	12
Oceana	70	19	Mason	21	12
Ottawa	68	19	St. Joseph	50	12
Branch	68	18	Wayne	43	12
Montmorency	55	18	Crawford	94	11
Antrim	53	17	Huron	48	11
Benzie	61	17	Isabella	64	11
Midland	84	17	Keweenaw	33	11
Monroe	61	17	Luce	59	11
Alcona	66	16	Menominee	56	11
Arenac	100	16	Missaukee	50	11
Charlevoix	70	16	Muskegon	50	11
Clinton	49	16	Tuscola	57	11
Hillsdale	58	16	Van Buren	43	11
Manistee	64	16	Houghton	60	10
Grand Traverse	79	16	Iron	60	10
Livingston	73	16	Mackinac	55	10
Otsego	102	16	Mecosta	54	10
Roscommon	71	16	Ogemaw	69	10
Washtenaw	75	16	Presque Isle	41	10
Allegan	49	15	Schoolcraft	65	10
Eaton	57	15	Alger	55	9
Ionia	66	15	Baraga	26	9
Saginaw	64	15	Calhoun	52	9
Bay	65	14	Gratiot	49	9
Berrien	40	14	Lake	18	9
Clare	53	14	Shiawassee	43	9
Gladwin	48	14	Gogebic	36	8
Kent	56	14	Newaygo	45	8
Montcalm	62	14	Marquette	69	7
Osceola	47	14	Delta	63	5
St. Clair	57	14	Barry	51	4
Cass	55	13	Iosco	39	4
Emmet	58	13	Ontonagon	3	0
Ingham	58	13	Chippewa	38	- 3
Kalamazoo	65	13			
Lenawee	39	13	Michigan	56	14
Oscoda	62	13	United States	56	11

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1977

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county in which received	Percentage[a]
Clinton	97,665	182,074	279,739	65.04
Eaton	157,435	275,694	433,129	63.65
Livingston	189,050	272,220	461,270	59.01
Shiawassee	192,325	163,314	355,639	45.92
Lapeer	180,739	142,215	322,954	44.03
Leelanau	28,826	21,206	50,032	42.38
Monroe	406,743	294,791	701,534	42.02
Gladwin	31,018	22,120	53,138	41.63
Cass	132,706	94,051	226,757	41.48
Barry	104,676	68,846	173,522	39.68
Tuscola	163,416	99,547	262,963	37.86
Oceana	43,745	25,830	69,575	37.12
Allegan	201,394	110,752	312,146	35.48
Van Buren	171,522	83,286	254,808	32.68
Clare	44,820	20,044	64,864	30.90
Missaukee	17,719	7,646	25,365	30.14
Arenac	35,527	14,508	50,035	29.00
Alcona	15,043	5,747	20,790	27.64
Newaygo	77,993	29,111	107,104	27.18
Keweenaw	4,521	1,506	6,027	24.99
St. Clair	469,950	141,225	611,205	23.11
Ionia	150,408	44,700	195,108	22.91
Antrim	41,313	11,636	52,949	21.98
Lake	11,927	3,341	15,268	21.88
Macomb	3,676,257	972,615	4,648,872	20.92
Bay	512,431	124,440	636,871	19.54
Hillsdale	145,843	33,939	179,782	18.88
Gogebic	51,183	11,502	62,685	18.34
Sanilac	125,417	27,363	152,780	17.91
Ottawa	628,049	128,435	756,484	16.98
Menominee	76,833	15,599	92,432	16.88
Oakland	6,223,063	1,216,116	7,439,179	16.35
Iron	39,308	7,449	46,757	15.93
Benzie	30,057	4,898	34,955	14.01
Lenawee	384,321	47,132	431,453	10.92

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1977 (cont.)

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county which received	Percentage[a]
Gratiot	168,319	20,484	188,803	10.85
Montcalm	161,134	18,408	179,542	10.25
Isabella	168,473	18,609	187,082	9.95
Mecosta	85,513	8,177	93,690	8.73
Alger	24,644	2,293	26,937	8.51
Presque Isle	37,737	3,243	40,980	7.91
Baraga	24,478	2,048	26,526	7.72
Montmorency	16,432	1,323	17,755	7.45
Huron	130,952	10,001	140,953	7.10
St. Joseph	231,013	17,240	248,253	6.94
Branch	172,375	9,556	181,931	5.25
Oscoda	11,770	640	12,410	5.16
Ogemaw	37,630	1,726	39,356	4.38
Charlevoix	70,357	3,159	73,516	4.30
Osceola	52,141	2,173	54,314	4.00
Crawford	27,073	929	28,002	3.32
Jackson	756,705	23,423	780,128	3.00
Kalkaska	34,692	990	35,682	2.77
Houghton	102,244	2,587	104,831	2.47
Cheboygan	59,015	1,420	60,435	2.35
Mackinac	34,418	512	34,930	1.46
Mason	89,305	503	89,808	.56
Schoolcraft	27,447	- 41	27,406	- .15
Chippewa	114,998	- 213	114,785	- .18
Manistee	81,093	- 174	80,919	- .21
Iosco	101,615	- 552	101,063	- .54
Alpena	137,452	-1,888	135,564	- 1.37
Delta	146,897	-2,240	144,657	- 1.52
Berrien	860,011	-13,775	846,236	- 1.60
Marquette	328,715	-7,052	321,663	- 2.14
Roscommon	32,880	-1,133	31,747	- 3.44
Muskegon	750,654	-27,250	723,404	- 3.63
Dickinson	121,905	-6,223	115,682	- 5.10
Luce	29,848	-1,545	28,303	- 5.18
Calhoun	835,798	-45,513	790,285	- 5.44
Emmet	93,652	-6,858	86,794	- 7.32

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1977 (cont.)

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county which received	Percentage[a]
Kalamazoo	1,260,683	- 92,938	1,167,745	- 7.37
Otsego	61,098	- 4,547	56,551	- 7.44
Saginaw	1,458,891	-113,356	1,345,535	- 7.77
Kent	2,545,563	-257,355	2,288,208	-10.11
Genesee	3,321,218	-351,060	2,970,158	-10.57
Grand Traverse	260,776	- 30,414	230,362	-11.66
Wexford	97,196	- 11,895	85,301	-12.24
Wayne	18,142,791	-2,531,230	15,611,561	-13.95
Midland	521,690	- 97,687	424,003	-18.72
Washtenaw	1,959,815	-379,574	1,580,241	-19.37
Ingham	2,129,619	-547,802	1,581,817	-25.72
Ontonagon	46,863	- 16,377	30,486	-34.94
Michigan	52,828,831	325,680	53,154,511	.62
United States	1,104,148,000	-202,687	1,103,945,313	- .02

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Residence adjustment as percentage of labor and proprietors' earnings received (where positive) or generated (where negative).

TABLE VI-14. RANKING OF MICHIGAN COUNTIES ACCORDING TO NONFARM PROPRIETORS' EARNINGS AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1977

County	Percentage 1976	Percentage 1977	County	Percentage 1976	Percentage 1977
Alcona	19.96	21.03	Van Buren	8.30	8.02
Montmorency	17.47	19.00	Delta	7.67	7.98
Lake	17.28	18.60	Montcalm	8.11	7.76
Oscoda	18.34	17.36	Oakland	7.96	7.74
Mackinac	14.64	15.56	Cass	7.32	7.67
Clare	15.41	15.53	Shiawassee	7.88	7.62
Gladwin	15.61	15.33	Iosco	6.70	7.49
Missaukee	14.50	14.77	Hillsdale	7.21	7.48
Leelanau	18.91	14.51	St. Clair	7.57	7.40
Roscommon	14.57	14.51	Mason	8.07	7.39
Iron	12.04	12.59	Houghton	7.58	7.34
Alger	11.28	11.86	Manistee	7.69	7.27
Oceana	13.44	11.78	Ionia	7.63	7.27
Ogemaw	9.81	11.67	Monroe	7.27	7.22
Clinton	10.83	11.58	Ottawa	7.74	7.13
Benzie	11.95	11.07	Dickinson	7.21	7.00
Newaygo	10.73	10.74	Grand Traverse	7.12	6.90
Baraga	10.16	10.73	Bay	6.82	6.71
Cheboygan	10.00	10.67	Lapeer	6.86	6.66
Gogebic	10.68	10.56	Luce	6.00	6.52
Eaton	9.66	10.46	Alpena	5.85	6.32
Barry	9.54	10.45	Lenawee	6.66	6.07
Livingston	10.08	10.35	Branch	6.36	6.07
Presque Isle	10.71	10.16	Kent	6.27	6.07
Crawford	8.05	10.01	Gratiot	6.13	5.96
Osceola	9.98	9.73	Berrien	6.39	5.90
Arenac	9.63	9.64	St. Joseph	5.87	5.77
Schoolcraft	10.47	9.55	Muskegon	5.13	5.04
Kalkaska	8.12	9.47	Jackson	4.99	4.80
Antrim	8.91	9.32	Ontonagon	4.52	4.78
Tuscola	9.43	9.08	Kalamazoo	4.63	4.70
Huron	9.38	8.93	Calhoun	4.36	4.46
Otsego	7.67	8.90	Macomb	4.58	4.39
Allegan	9.36	8.87	Saginaw	4.32	4.17
Wexford	9.28	8.82	Marquette	4.12	4.03
Isabella	7.77	8.74	Ingham	3.58	3.59
Sanilac	9.38	8.73	Washtenaw	3.30	3.13
Charlevoix	9.37	8.55	Wayne	3.10	3.02
Menominee	8.39	8.55	Genesee	3.13	2.94
Keweenaw	10.13	8.37	Midland	2.96	2.76
Chippewa	7.09	8.24			
Emmet	8.19	8.12	Michigan	4.91	4.81
Mecosta	6.38	8.12	United States	6.64	6.42

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN BY COUNTY: 1969 AND 1975

County	1969	1975	County	1969	1975
Alcona	2,172	2,102	Keweenaw	1,887	3,143
Alger	2,276	3,408	Lake	2,067	2,843
Allegan	2,649	3,855	Lapeer	2,705	3,833
Alpena	2,552	3,808	Leelanau	2,588	3,942
Antrim	2,462	3,455	Lenawee	2,947	4,071
Arenac	2,467	3,722	Livingston	3,320	3,731
Baraga	2,600	3,975	Luce	2,314	3,386
Barry	2,849	4,052	Mackinac	2,259	3,356
Bay	3,048	4,589	Macomb	3,596	5,138
Benzie	2,450	3,529	Manistee	2,616	3,827
Berrien	3,031	4,337	Marquette	2,521	4,036
Branch	2,647	3,858	Mason	2,651	3,887
Calhoun	3,309	4,941	Mecosta	2,483	3,510
Cass	2,918	4,043	Menominee	2,308	3,556
Charlevoix	2,543	3,778	Midland	3,460	5,180
Cheboygan	2,435	3,442	Missaukee	2,058	3,029
Chippewa	2,217	3,488	Monroe	3,208	4,663
Clare	2,367	3,360	Montcalm	2,601	3,712
Clinton	3,019	4,307	Montmorency	2,112	2,773
Crawford	2,507	3,614	Muskegon	2,873	4,211
Delta	2,528	3,743	Newaygo	2,537	3,637
Dickinson	2,513	4,051	Oakland	4,496	6,507
Eaton	3,332	4,752	Oceana	2,403	3,425
Emmet	2,703	4,023	Ogemaw	2,250	3,149
Genesee	3,303	4,873	Ontonagon	2,342	3,624
Gladwin	2,449	3,397	Osceola	2,406	3,473
Gogebic	2,230	3,476	Oscoda	2,469	3,704
Grand Traverse	2,853	4,239	Otsego	2,794	4,054
Gratiot	2,649	4,001	Ottawa	3,002	4,369
Hillsdale	2,650	3,767	Presque Isle	2,338	3,575
Houghton	2,104	3,299	Roscommon	2,566	3,287
Huron	2,375	3,703	Saginaw	3,130	4,711
Ingham	3,406	5,034	St. Clair	3,019	4,288
Ionia	2,623	3,771	St. Joseph	3,010	4,118
Iosco	2,295	3,446	Sanilac	2,508	3,527
Iron	2,374	3,758	Schoolcraft	2,274	3,520
Isabella	2,422	3,645	Shiawassee	3,020	4,268
Jackson	3,198	4,657	Tuscola	2,663	3,934
Kalamazoo	3,355	5,046	Van Buren	2,681	3,872
Kalkaska	2,141	3,086	Washtenaw	3,761	5,326
Kent	3,265	4,752	Wayne	3,485	5,126
			Wexford	2,438	3,592
			Michigan	3,354	4,884

SOURCE: Bureau of the Census, Current Popoulation Reports, Series P-25. no. 761 (Washington, D.C.: 1979), Table 1.

NOTE: Figures pertain to the 1969 and 1975 incomes of persons in April 1970 and 1976, respectively.

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Addison	$ 3,808	$ 5,366	Berkley	$ 3,840	$ 5,499
Adrian	2,886	3,907	Berrien Springs	3,068	4,412
Ahmeek	1,974	3,316	Bessemer	2,207	3,502
Akron	2,523	4,089	Beulah	3,363	4,911
Alanson	3,293	4,955	Beverly Hills	7,287	10,418
Albion	2,587	3,559	Big Rapids	2,517	3,503
Algonac	3,212	4,596	Bingham Farms	9,004	14,822
Allegan	2,912	3,999	Birch Run	3,091	4,550
Allen	2,740	3,366	Birmingham	6,136	9,052
Allen Park	4,188	6,181	Blissfield	3,152	4,624
Alma	2,789	3,964	Bloomfield Hills	20,448	30,000
Almont	3,205	4,465	Bloomingdale	2,462	3,465
Alpena	2,765	4,168	Boyne City	2,607	3,747
Alpha	2,396	3,813	Boyne Falls	2,037	3,363
Ann Arbor	4,109	5,752	Breckenridge	3,016	4,506
Applegate	2,484	3,317	Breedsville	3,123	4,709
Armada	3,133	4,484	Bridgman	3,301	4,355
Ashley	2,601	3,739	Brighton	3,326	4,768
Athens	5,243	8,048	Britton	2,950	4,320
Auburn	3,034	4,644	Bronson	2,781	4,211
Au Gres	2,626	3,777	Brooklyn	2,729	4,137
Augusta	3,596	5,436	Brown City	2,215	3,064
Bad Axe	2,977	4,220	Buchanan	3,373	4,655
Baldwin	2,703	3,395	Buckley	2,268	3,461
Bancroft	2,866	4,305	Burlington	2,293	3,210
Bangor	3,207	4,788	Burr Oak	2,841	3,964
Baraga	2,566	3,948	Burton	3,247	4,608
Baroda	3,164	4,729	Byron	2,702	4,176
Barryton	2,668	3,658	Cadillac	2,628	3,893
Barton Hills	8,796	13,345	Caledonia	3,036	4,563
Battle Creek	3,137	4,817	Calumet	2,225	3,786
Bay City	3,047	4,617	Camden	2,672	3,502
Bear Lake	2,687	4,105	Capac	2,856	4,259
Beaverton	2,619	3,382	Carleton	3,710	5,545
Belding	2,805	3,850	Caro	3,115	4,270
Bellaire	2,702	3,779	Carson City	2,271	3,080
Belleville	4,125	5,955	Carsonville	2,731	3,858
Bellevue	3,160	4,311	Caseville	3,020	4,268
Benton Harbor	2,146	3,189	Casnovia	2,581	3,731
Benzonia	2,826	4,162	Caspian	2,031	3,128

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Cass City	$ 3,185	$ 4,214	Dearborn Heights	$ 3,921	$ 5,602
Cassopolis	2,636	3,711	Decatur	2,384	3,833
Cedar Springs	2,905	4,256	Deckerville	2,482	3,814
Cement City	2,576	3,963	Deerfield	3,309	5,379
Center Line	3,659	5,116	De Tour	2,051	3,157
Central Lake	2,293	3,410	Detroit	3,199	4,661
Centreville	2,481	3,404	De Witt	3,184	4,658
Charlevoix	2,780	4,332	Dexter	3,505	5,478
Charlotte	3,162	4,405	Dimondale	3,087	4,392
Chatham	2,257	3,196	Douglas	2,815	4,172
Cheboygan	2,573	3,673	Dowagiac	2,882	4,029
Chelsea	3,210	5,073	Dryden	2,732	4,044
Chesaning	2,814	4,165	Dundee	3,299	4,686
Clare	3,162	4,684	Durand	3,104	4,405
Clarkston	4,567	6,430	Eagle	2,849	4,020
Clarksville	2,546	3,551	East Detroit	3,656	5,227
Clawson	3,459	5,080	East Grand Rapids	6,745	9,342
Clayton	2,025	2,978	East Jordon	2,609	3,599
Clifford	2,224	2,942	East Lake	3,026	4,471
Climax	3,303	5,282	East Lansing	3,306	4,890
Clinton	3,903	5,477	East Tawas	2,679	3,886
Clio	3,258	4,930	Eaton Rapids	3,127	4,508
Coldwater	2,956	4,399	Eau Claire	2,841	4,197
Coleman	2,502	3,787	Ecorse	2,831	4,256
Coloma	2,870	4,154	Edmore	2,634	3,752
Colon	3,190	4,485	Edwardsburg	3,261	4,840
Columbiaville	2,378	3,402	Elberta	2,401	3,225
Concord	2,830	3,972	Elk Rapids	2,550	3,583
Constantine	2,437	3,080	Elkton	2,485	3,613
Coopersville	2,719	3,971	Ellsworth	2,500	3,679
Copemish	2,118	2,820	Elsie	2,801	3,967
Copper City	1,432	2,422	Emmett	2,621	3,784
Corunna	3,048	4,331	Empire	2,278	4,203
Croswell	2,557	3,410	Escanaba	2,832	4,278
Crystal Falls	2,600	3,921	Essexville	3,714	5,656
Custer	2,389	3,184	Estral Beach	3,382	5,177
Daggett	1,999	3,258	Evart	2,438	3,561
Dansville	2,327	3,655	Fairgrove	2,770	4,466
Davison	3,706	5,369	Farmington	5,032	7,364
Dearborn	4,387	6,568	Farmington Hills	4,997	7,762

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Farwell	$ 2,057	$ 2,944	Grant	$ 2,720	$ 3,778
Fenneville	2,659	3,973	Grass Lake	3,047	4,627
Fenton	3,378	4,839	Grayling	2,793	3,978
Ferndale	3,770	5,332	Greenville	3,115	4,201
Ferrysburg	3,378	5,075	Grosse Pointe	7,522	11,242
Fife Lake	2,313	3,396	Grosse Pte. Farms	9,012	12,408
Flat Rock	3,676	5,154	Grosse Pte. Park	6,687	9,961
Flint	3,202	4,769	Grosse Pte. Shores	12,321	17,401
Flushing	3,877	5,635	Grosse Pte. Woods	6,092	8,290
Forestville	2,506	3,462	Hamtramck	3,232	4,838
Fountain	3,027	4,513	Hancock	2,266	3,470
Fowler	2,656	3,989	Hanover	3,266	4,786
Fowlerville	2,935	4,105	Harbor Beach	2,559	3,603
Frankenmuth	4,157	6,471	Harbor Springs	2,498	3,952
Frankfort	2,607	3,765	Harper Woods	4,369	6,348
Franklin	9,020	12,387	Harrietta	1,530	2,293
Fraser	3,499	4,958	Harrison	2,544	3,750
Freeport	2,265	3,115	Harrisville	2,426	3,618
Freesoil	2,188	3,038	Hart	2,399	3,276
Fremont	3,129	4,053	Hartford	2,389	3,372
Fruitport	3,282	4,726	Hastings	3,279	4,594
Gaastra	2,444	4,006	Hazel Park	3,271	4,509
Gagetown	2,493	3,614	Hersey	2,727	4,078
Gaines	4,024	6,234	Hesperia	2,933	4,176
Galesburg	2,965	4,453	Highland Park	3,011	4,399
Galien	2,748	4,084	Hillman	2,182	2,767
Garden	2,586	3,884	Hillsdale	3,008	4,197
Garden City	3,222	4,704	Holland	3,213	4,472
Gaylord	2,821	3,918	Holly	3,016	4,488
Gibralter	3,548	5,148	Homer	2,789	3,841
Gladstone	2,408	3,652	Honor	2,498	3,503
Gladwin	3,157	4,405	Hopkins	2,490	3,677
Gobles	2,945	4,153	Houghton	2,395	3,625
Goodrich	3,474	5,485	Howard City	2,092	3,052
Grand Beach	4,076	5,897	Howell	3,675	5,247
Grand Blanc	4,993	7,218	Hubbardston	2,685	3,720
Grand Haven	3,284	4,901	Hudson	3,018	4,227
Grand Ledge	3,397	4,991	Hudsonville	2,810	4,074
Grand Rapids	3,173	4,622	Huntington Woods	6,820	9,534
Grandville	3,271	4,957	Imlay City	2,982	4,287

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Inkster	$ 3,054	$ 4,524	Lincoln	$ 2,286	$ 3,276
Ionia	3,031	4,310	Lincoln Park	3,644	5,337
Iron Mountain	2,772	4,579	Linden	4,088	6,458
Iron River	2,370	3,802	Litchfield	2,504	3,279
Ironwood	2,278	3,535	Livonia	3,965	5,820
Ishpeming	2,656	4,566	Lowell	2,937	4,322
Ithaca	3,080	4,621	Ludington	2,947	4,277
Jackson	3,125	4,678	Luna Pier	2,525	3,666
Jonesville	3,140	4,530	Luther	2,028	2,687
Kalamazoo	3,233	4,852	Lyons	2,434	3,348
Kaleva	2,598	3,719	McBain	2,232	3,303
Kalkaska	2,088	2,879	McBride	2,843	4,138
Keego Harbor	3,563	5,085	Mackinac Island	2,251	3,504
Kent City	2,214	3,107	Mackinaw City	2,612	3,625
Kentwood	3,289	4,667	Madison Heights	3,528	4,914
Kinde	2,867	4,140	Mancelona	2,613	3,484
Kingsford	2,451	4,066	Manchester	3,982	6,296
Kingsley	2,370	3,585	Manistee	2,854	4,159
Kingston	2,693	3,800	Manistique	2,483	3,836
Laingsburg	2,196	3,132	Manton	2,102	2,884
Lake Angelus	6,056	9,267	Maple Rapids	2,508	3,582
Lake Ann	2,599	3,682	Marcellus	2,672	3,664
Lake City	2,551	3,566	Marine City	3,090	4,359
Lake Linden	1,722	2,818	Marion	2,319	3,587
Lake Odessa	2,929	4,785	Marlette	3,144	3,932
Lake Orion	3,498	4,811	Marquette	2,655	4,172
Lakeview	3,039	4,089	Marshall	3,450	5,177
Lakewood Club	2,628	3,673	Martin	2,866	4,920
L'Anse	2,767	4,395	Marysville	3,394	4,866
Lansing	3,365	4,935	Mason	3,260	5,023
Lapeer	2,984	4,294	Mattawan	2,959	4,344
Lathrup Village	7,180	9,970	Maybee	3,129	4,679
Laurium	2,160	3,624	Mayville	3,004	3,923
Lawrence	2,767	4,458	Mecosta	2,215	3,161
Lawton	2,502	3,667	Melvin	2,508	3,554
Lennon	3,026	4,267	Melvindale	3,583	5,276
Leonard	3,563	5,342	Memphis	2,793	4,056
Le Roy	2,521	3,809	Mendon	2,902	3,733
Leslie	2,999	4,506	Menominee	2,622	4,077
Lexington	2,657	3,625	Merrill	2,575	3,666

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Mesick	$ 2,672	$ 3,497	Northville	$ 4,232	$ 6,412
Metamora	3,128	4,166	Norton Shores	3,439	5,021
Michiana	3,118	4,523	Norway	2,239	3,471
Middleville	2,963	4,202	Novi	3,784	5,902
Midland	4,099	6,084	Oakley	2,315	3,355
Milan	3,249	4,588	Oak Park	4,687	6,433
Milford	3,439	4,800	Olivet	2,383	3,366
Millersburg	2,224	3,512	Omer	2,401	3,490
Millington	2,946	4,004	Onaway	2,000	2,942
Minden City	2,289	3,294	Onekama	2,879	3,817
Mineral Hills	2,440	3,983	Onsted	2,781	3,693
Monroe	3,554	5,169	Ontonagon	2,614	3,997
Montague	2,704	3,991	Orchard Lake Village	6,831	9,884
Montgomery	2,305	2,848	Ortonville	2,865	4,605
Montrose	2,904	4,527	Otisville	3,174	4,830
Morenci	2,909	4,017	Otsego	2,720	4,040
Morley	2,475	3,383	Otter Lake	2,458	3,411
Morrice	2,620	3,590	Ovid	2,901	4,211
Mount Clemens	3,571	5,240	Ownedale	3,012	4,385
Mount Morris	3,168	4,648	Owosso	3,278	4,530
Mount Pleasant	2,398	3,609	Oxford	2,971	4,484
Muir	2,528	3,221	Parchment	4,237	5,955
Mulliken	2,838	4,277	Parma	3,188	4,819
Munising	2,574	3,870	Paw Paw	3,106	4,418
Muskegon	2,862	4,262	Peck	2,507	3,667
Muskegon Heights	2,296	3,500	Pellston	2,060	2,686
Nashville	2,902	3,741	Pentwater	2,328	3,753
Negaunee	2,645	4,240	Perrinton	2,349	3,723
Newaygo	2,328	3,256	Perry	2,781	3,992
New Baltimore	3,475	4,919	Petersburg	2,904	4,097
Newberry	3,039	4,502	Petoskey	3,013	4,551
New Buffalo	2,854	4,144	Pewamo	2,906	4,301
New Era	3,677	5,446	Pierson	2,340	3,358
New Haven	2,844	4,258	Pigeon	2,389	4,066
New Lothrop	2,999	4,491	Pinckney	3,060	4,431
Niles	3,441	5,054	Pinconning	2,652	4,073
North Adams	2,386	3,171	Plainwell	2,975	4,352
North Branch	2,785	4,349	Pleasant Ridge	5,406	7,559
North Muskegon	4,814	6,658	Plymouth	4,155	6,034
Northport	2,594	4,103	Pontiac	2,836	4,018

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Portage	$ 3,489	$ 5,311	Saline	$ 3,824	$ 5,33
Port Austin	2,144	3,416	Sand Lake	3,102	4,49
Port Hope	2,387	3,323	Sanduskey	2,628	3,51
Port Huron	3,003	4,246	Sanford	2,878	4,236
Portland	2,989	4,268	Saranac	2,948	3,910
Port Sanilac	2,932	5,111	Saugatuck	3,103	4,799
Posen	2,202	3,294	Sault Ste. Marie	2,430	3,882
Potterville	2,803	3,829	Schoolcraft	3,092	4,478
Powers	1,918	3,147	Scottville	3,014	4,059
Prescott	2,134	2,733	Sebawaing	2,604	3,886
Quincy	3,256	4,489	Shelby	2,625	3,618
Ravenna	2,871	4,013	Shepherd	2,797	4,072
Reading	2,469	3,467	Sheridan	2,725	3,754
Reed City	2,919	4,253	Sherwood	2,287	3,801
Reese	3,162	4,947	Shoreham	4,285	6,177
Richland	3,544	5,301	Southfield	5,934	8,774
Richmond	2,786	4,229	Southgate	3,626	5,444
River Rouge	2,912	4,388	South Haven	2,920	4,182
Riverview	3,654	5,715	South Lyon	3,271	4,767
Rochester	4,237	6,207	South Range	2,164	3,553
Rockford	3,122	4,627	South Rockwood	2,847	4,366
Rockwood	3,432	4,960	Sparta	2,799	3,849
Rogers City	2,856	4,573	Springfield	3,123	4,813
Romeo	3,225	4,957	Spring Lake	4,154	6,330
Romulus	3,127	4,520	Springport	2,662	3,979
Roosevelt Park	3,781	5,433	Stambaugh	2,421	3,913
Roscommon	2,938	3,644	Standish	3,288	4,760
Rosebush	2,037	3,197	Stanton	2,914	4,134
Rose City	2,626	3,388	Stanwood	2,099	2,901
Roseville	3,269	4,680	Stephenson	2,452	3,768
Rothbury	2,976	4,758	Sterling	2,429	3,592
Royal Oak	4,263	6,183	Sterling Heights	3,718	5,182
Saginaw	2,987	4,445	Stevensville	3,156	4,579
St. Charles	2,848	4,414	Stockbridge	2,987	4,216
St. Clair	3,769	5,405	Sturgis	3,416	4,572
St. Clair Shores	3,771	5,534	Sunfield	2,403	3,798
St. Ignace	2,376	3,368	Suttons Bay	2,816	4,411
St. Johns	3,289	4,626	Swartz Creek	3,318	4,949
St. Joseph	3,876	5,798	Sylvan Lake	4,916	7,362
St. Louis	2,717	4,151	Tawas City	2,395	3,645

TABLE VI-16. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1975 (cont.)

Place	Income 1969	Income 1975	Place	Income 1969	Income 1975
Taylor	$ 3,213	$ 4,592	Walkerville	$ 2,224	$ 2,883
Tecumseh	3,565	4,473	Walled Lake	3,372	4,874
Tekonsha	3,041	4,059	Warren	3,660	5,139
Thompsonville	2,114	3,226	Watervliet	2,684	3,707
Three Oaks	3,078	4,245	Wayland	3,010	4,422
Three Rivers	2,949	4,129	Wayne	3,477	4,945
Traverse City	2,853	4,397	Webberville	2,792	4,078
Trenton	3,979	5,780	West Branch	2,605	3,576
Troy	4,747	6,886	Westland	3,395	4,841
Turner	2,227	3,381	Westphalia	2,766	3,834
Tustin	2,462	3,663	White Cloud	3,124	4,493
Twining	2,892	4,393	Whitehall	3,076	4,636
Ubly	2,256	3,078	White Pigeon	3,168	4,180
Union City	2,761	3,935	Whittemore	2,031	3,191
Unionville	2,616	4,174	Williamston	3,176	5,154
Utica	3,753	5,490	Wixom	3,152	5,007
Vandalia	1,943	2,769	Wolverine	2,011	2,797
Vanderbilt	1,966	2,722	Wolverine Lake	3,481	4,647
Vassar	3,393	5,146	Woodhaven	3,662	5,102
Vermontville	2,581	3,721	Woodland	2,603	3,801
Vernon	3,351	4,334	Wyandotte	3,430	5,157
Vicksburg	2,881	4,415	Wyoming	3,035	4,482
Wakefield	2,209	3,352	Yale	2,637	3,756
Waldron	2,050	2,868	Ypsilanti	2,946	4,136
Walker	3,100	4,544	Zeeland	3,069	4,657
			Zilwaukee	2,848	4,184

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, no. 761 (Washington, D.C.: 1979), Table 1.

NOTE: There were 531 incorporated places in Michigan in 1975.

TABLE VI-17. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AND MEDIAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN MICHIGAN, FOR WHITE, BLACK AND PERSONS OF SPANISH LANGUAGE: CENSUS 1970

Income	White		Negro	Total
	Spanish	Total		
		Families		
Less than $1,000	593	28,081	11,137	39,455
$1,000 to $1,999	500	40,983	11,023	52,277
$2,000 to $2,999	660	58,340	13,073	71,822
$3,000 to $3,999	822	63,915	12,202	76,568
$4,000 to $4,999	1,039	67,711	11,771	79,918
$5,000 to $5,999	1,210	76,057	12,150	88,709
$6,000 to $6,999	1,465	87,084	13,821	101,392
$7,000 to $7,999	2,203	109,013	16,177	125,745
$8,000 to $8,999	2,298	131,460	17,183	149,195
$9,000 to $9,999	2,176	136,856	15,265	152,679
$10,000 to $11,999	3,570	278,398	25,774	305,128
$12,000 to $14,999	3,810	334,627	27,444	363,177
$15,000 to $24,999	3,960	437,443	28,814	467,648
$25,000 to $49,999	681	94,703	3,676	98,841
$50,000 or more	149	17,198	432	17,715
TOTAL	25,136	1,961,869	219,942	2,190,269
Median	$9,817	$11,303	$8,501	$11,032
		Unrelated individuals		
Less than $1,000	1,200	120,110	20,354	142,089
$1,000 to $1,999	903	137,151	17,146	155,341
$2,000 to $2,999	556	75,651	8,517	84,698
$3,000 to $3,999	429	51,240	7,153	58,974
$4,000 to $4,999	368	37,361	5,557	43,192
$5,000 to $5,999	318	33,267	5,272	38,760
$6,000 to $6,999	312	29,730	5,615	35,517
$7,000 to $7,999	331	28,846	6,461	35,606
$8,000 to $8,999	210	23,552	5,287	28,969
$9,000 to $9,999	195	17,014	2,978	20,151
$10,000 to $11,999	96	23,269	2,888	26,296
$12,000 to $14,999	91	16,787	1,346	18,228
$15,000 to $24,999	118	12,034	546	12,629
$25,000 to $49,999	7	2,868	106	3,012
$50,000 or more	10	860	61	926
TOTAL	5,144	609,740	89,287	704,388
Median	$2,844	$2,629	$2,839	$2,647

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 57.

NOTE: The census was conducted in April 1970. The income data pertain to the year 1969.

TABLE VI-18. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEAN AND MEDIAN INCOME AMONG HOUSEHOLDS IN THE DETROIT, FLINT, GRAND RAPIDS, AND LANSING STANDARD METROPOLITAN STATISTICAL AREAS, MICHIGAN AND THE UNITED STATES: CENSUS 1970

Income class	Detroit	Flint	Grand Rapids	Lansing	Michigan	United States
			Number of households			
Less than $1,000	42,232	4,657	5,034	3,443	97,106	3,068,499
1,000-1,999	59,177	6,421	8,341	5,161	143,902	4,224,883
2,000-2,999	49,872	5,452	7,541	4,751	123,186	3,732,813
3,000-3,999	47,012	5,226	7,049	4,894	115,242	3,594,092
4,000-4,999	47,472	5,410	6,882	4,701	110,834	3,493,019
5,000-5,999	47,015	5,939	7,312	4,733	116,942	3,749,521
6,000-6,999	52,009	6,452	8,591	5,306	128,559	3,869,881
7,000-7,999	62,384	8,427	10,476	6,268	152,687	4,072,348
8,000-9,999	147,954	20,545	22,766	15,052	342,281	7,979,189
10,000-14,999	351,899	41,312	45,615	30,709	715,314	14,645,348
15,000-24,999	286,577	28,191	23,887	21,005	491,790	8,689,107
25,000 or more	76,936	5,363	6,307	4,699	122,772	2,519,021
Total	1,270,539	143,395	159,801	110,722	2,660,615	63,637,721
			Income per household			
Median	11,139	10,383	9,640	10,171	9,997	8,486
Mean	12,233	11,152	10,692	11,113	11,094	9,816

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, Detailed Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-D24, Table 206; and U.S. Census of Population: 1970, Characteristics of the Population (Washington, D.C.; 1973), Vol. 1, Part 1, Section 2, Table 258.

NOTE: The Census was conducted in April 1970. The income data pertain to 1969. Median income is that of the middle household in a ranking of households. Mean income is the arithmetic average, that is, total income received by all households divided by the number of households. A household consists of all persons, whether or not related, who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit.

TABLE VI-19. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AND MEDIAN INCOME AMONG HOUSEHOLDS INSIDE AND OUTSIDE METROPOLITAN AREAS, MICHIGAN AND THE UNITED STATES: SPRING 1976

(Households in thousands)

Income size class	Metropolitan areas: In central cities	Metropolitan areas: Outside central cities	Outside metropolitan areas	Total
		Michigan		
Under $5,000	171	169	139	478
$5,000-$9,999	167	231	172	570
$10,000-$14,999	163	314	164	640
$15,000-$19,999	128	286	115	530
$20,000-$24,999	75	232	58	365
$25,000-$29,999	36	144	36	217
$30,000-$49,999	38	121	34	193
$50,000 and over	5	26	5	35
TOTAL	783	1,524	723	3,029
Median income	$11,506	$15,692	$11,456	$13,595
		United States		
Under $3,000	2,319	1,485	2,585	6,390
$3,000-$4,999	2,608	1,914	2,501	7,023
$5,000-$6,999	2,318	1,924	2,375	6,618
$7,000-$9,999	3,201	3,145	3,279	9,625
$10,000-$11,999	1,997	2,165	2,031	6,193
$12,000-$13,499	1,395	1,783	1,507	4,685
$13,500-$14,999	1,200	1,621	1,222	4,043
$15,000-$17,499	1,869	2,700	1,861	6,430
$17,500-$19,999	1,466	2,220	1,335	5,021
$20,000-$21,999	946	1,678	890	3,515
$22,000-$24,999	1,052	1,908	882	3,842
$25,000-$29,999	1,104	2,129	839	4,072
$30,000-$49,999	1,166	2,326	829	4,321
$50,000 and over	296	542	189	1,027
TOTAL	22,936	27,540	22,328	72,804
Median income	$10,948	$14,728	$10,837	$12,158

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, Number 108 (Washington, D.C.: 1977), Tables 1 and 22.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Income data pertain to 1975.

TABLE VI-20. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AND MEDIAN INCOME AMONG WHITE AND BLACK FAMILIES AND UNRELATED INDIVIDUALS, MICHIGAN AND THE UNITED STATES: SPRING 1976

(Numbers in thousands)

Income size class	Families		Unrelated individuals	
	White	Black	White	Black
		Michigan		
Under $2,000	34	9	81	11
$2,000-$3,999	73	29	173	28
$4,000-$5,999	124	29	99	15
$6,000-$7,999	128	19	89	5
$8,000-$9,999	148	19	64	5
$10,000-$11,999	177	20	52	5
$12,000-$14,999	305	30	58	8
$15,000-$19,999	448	37	33	8
$20,000-$24,999	305	28	21	-
$25,000-$49,999	358	27	11	2
$50,000 and over	33	1	1	-
TOTAL	2,132	248	682	87
Median income	$15,758	$11,876	$5,693	$4,489
		United States		
Under $2,000	873	287	2,193	539
$2,000-$3,999	2,179	740	4,682	717
$4,000-$5,999	3,274	814	2,882	349
$6,000-$7,999	3,940	693	2,235	259
$8,000-$9,999	4,132	584	1,707	178
$10,000-$11,999	4,418	527	1,242	148
$12,000-$14,999	6,748	597	1,259	129
$15,000-$19,999	9,465	666	952	79
$20,000-$24,999	6,318	392	388	17
$25,000-$49,999	7,400	343	277	16
$50,000 and over	899	19	72	1
TOTAL	49,644	5,660	17,889	2,432
Median income	$14,664	$9,045	$5,373	$3,837

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, Number 111 (Washington, D.C.: 1978), Tables 1A and 7A.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Income data pertain to 1975.

TABLE VI-21. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEAN AND MEDIAN INCOME AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978

Income class	March 1977			March 1978		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
	Detroit, number of households in thousands					
Less than $4,000	90	42	132	96	45	141
4,000-6,999	82	61	143	58	71	129
7,000-9,999	37	78	115	21	81	102
10,000-11,999	23	45	68	32	58	90
12,000-14,999	43	77	119	39	55	94
15,000-17,499	52	86	138	35	83	119
17,500-19,999	34	74	108	37	72	109
20,000-24,999	38	143	181	49	144	193
25,000-29,999	29	115	145	27	125	152
30,000-49,999	25	144	170	44	168	212
50,000 and over	2	25	27	3	32	35
Total	457	889	1,346	441	934	1,375
	Detroit, income per household (1976-1977)					
Median (dollars)	11,639	19,346	16,618	12,726	20,050	17,785
Error (dollars)	866	563	364	569	532	405
Mean (dollars)	13,042	21,173	18,412	14,550	22,096	19,676
Error (dollars)	479	502	385	538	530	411

TABLE VI-21. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEAN AND MEDIAN INCOME AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978 (cont.)

Income class	March 1977			March 1978		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
	U.S., number of households in thousands					
Less than $4,000	3,758	2,336	6,094	3,414	2,265	5,679
4,000-6,999	3,566	2,681	6,247	3,355	2,727	6,072
7,000-9,999	2,944	3,022	5,966	2,905	2,799	5,704
10,000-11,999	1,794	1,955	3,748	1,725	1,795	3,520
12,000-14,999	2,476	3,050	5,526	2,426	2,879	5,305
15,000-17,499	1,908	2,807	4,716	1,782	2,647	4,429
17,500-19,999	1,433	2,303	3,736	1,447	2,204	3,651
20,000-24,999	2,167	3,716	5,883	2,340	3,887	6,226
25,000-29,999	1,127	2,422	3,549	1,386	2,808	4,194
30,000-49,999	1,235	2,745	3,980	1,696	3,600	5,295
50,000 and over	334	635	969	438	855	1,293
Total	22,741	27,672	50,414	22,914	28,455	51,369
	U.S., income per household (1976-1977)					
Median (dollars)	11,156	15,617	13,624	12,059	16,579	14,611
Error (dollars)	95	70	61	83	86	74
Mean (dollars	13,682	17,660	15,865	14,898	18,940	17,137
Error (dollars)	83	81	59	91	85	63

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, nos. 109 and 117 (Washington, D.C.: 1978), Table 11.

NOTE: The surveys were conducted in March 1977 and 1978. The income data pertain to 1976 and 1977. Median income is that of the middle household in a ranking of households, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all households divided by the number of households. A household consists of all persons, whether or not related, who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit. Error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-22. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEDIAN AND MEAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978

Income class	March 1977			March 1978		
	Families		Unrelated individuals, total SMSA	Families		Unrelated individuals, total SMSA
	Inside central city	Total SMSA		Inside central city	Total SMSA	
Detroit, number of families and unrelated individuals (000)						
Less than $3,000	16	18	84	12	19	92
3,000-4,999	39	60	52	21	38	67
5,000-6,999	35	65	32	15	49	57
7,000-9,999	24	87	35	16	66	34
10,000-11,999	13	51	24	22	68	28
12,000-14,999	27	83	39	31	82	14
15,000-19,999	74	219	34	55	177	58
20,000-24,999	32	165	15	48	185	8
25,000 and over	52	323	10	67	383	14
Total	312	1,071	325	287	1,066	371
Detroit, income per family or individual						
Median (dollars)	15,123	18,741	6,644	17,991	20,720	5,736
Error (dollars)	622	417	610	1,303	525	440
Mean (dollars)	15,226	20,582	8,593	18,077	22,641	8,359
Error (dollars)	594	439	398	894	663	602

TABLE VI-22. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEDIAN AND MEAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978 (cont.)

Income class	March 1977			March 1978		
	Families		Unrelated individuals, total SMSA	Families		Unrelated individuals, total SMSA
	Inside central city	Total SMSA		Inside central city	Total SMSA	
U.S., number of families and unrelated individuals (000)						
Less than $3,000	722	1,255	3,678	635	1,108	3,292
3,000-4,999	1,312	2,158	3,090	1,159	1,890	3,421
5,000-6,999	1,386	2,610	2,059	1,321	2,482	2,268
7,000-9,999	1,902	4,126	2,372	1,813	3,782	2,577
10,000-11,999	1,215	2,758	1,228	1,087	2,434	1,343
12,000-14,999	1,897	4,412	1,261	1,701	3,953	1,493
15,000-19,999	2,784	7,372	1,071	2,515	6,663	1,416
20,000-24,999	1,908	5,357	392	2,016	5,603	480
25,000 and over	2,405	7,908	361	3,112	9,926	542
Total	15,531	37,956	15,512	15,360	37,841	16,832
U.S., income per family or individual						
Median (dollars)	13,952	16,001	5,900	14,933	17,371	6,449
Error (dollars)	103	65	59	161	110	92
Mean (dollars)	16,017	18,019	7,768	17,404	19,579	8,536
Error (dollars)	105	69	64	165	106	99

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, nos. 114 and 118 (Washington, D.C.: 1979), Table 19.

NOTE: The surveys were conducted in March 1977 and 1978. The income data pertain to 1976 and 1977. Median income is that of the middle item in a ranking, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all units divided by the number of units. A family consists of two or more related individuals living together Error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-23. SELECTED POVERTY STATISTICS FOR THE PREVIOUS YEAR FOR PERSONS AND FAMILIES, MICHIGAN AND THE UNITED STATES: SPRING 1976

(Numbers in thousands)

Item	Michigan		United States	
	Number	Rate[a]	Number	Rate[a]
	Persons			
Family head	183	7.6	5,051	9.0
65 or older	11	3.9	662	8.1
Related children under 18	360	12.5	9,867	15.3
Related children 5-17	252	11.3	7,132	14.5
Other family members	111	3.7	4,182	6.0
Total in families	654	7.9	19,099	10.0
Unrelated individuals	167	21.6	4,891	23.7
65 or older	54	22.8	1,976	29.4
Female family head, no husband present	108	32.3	2,326	31.0
Related children under 18	224	47.5	5,116	49.0
Related children 5-17	158	44.0	3,673	44.8
Other family members	24	10.6	833	14.9
Total in families with female head, no husband present	357	34.5	8,275	35.2
Female unrelated individuals	120	26.0	3,293	27.5
White	571	7.2	16,140	8.8
Black	234	23.0	7,185	29.6
Spanish origin[b]	15	16.0	2,583	23.1
Under 14	290	13.6	7,874	16.3
14 to 24	192	9.7	5,494	12.5
25 to 34	84	6.3	2,512	8.0
35 to 54	117	5.7	3,286	7.1
55 to 59	32	7.1	873	8.2
60 to 64	36	10.0	902	9.8
65 and older	71	9.0	3,049	14.0
Nonfarm	794	9.0	22,753	11.2
Farm	27	9.8	1,238	14.8
In central cities	338	15.3	8,718	14.2
Outside central cities, in metropolitan areas	265	5.6	5,793	6.9
Outside metropolitan areas	218	10.2	9,480	14.3
TOTAL	821	9.1	23,991	11.4

TABLE VI-23. SELECTED POVERTY STATISTICS FOR THE PREVIOUS YEAR FOR PERSONS AND FAMILIES, MICHIGAN AND THE UNITED STATES: SPRING 1976 (cont.)

(Numbers in thousands)

Item	Michigan		United States	
	Number	Rate[a]	Number	Rate[a]
	Families			
2 person	60	7.1	1,732	8.1
3 person	36	7.1	969	8.0
4 person	41	8.1	867	7.7
5 person	19	7.0	597	9.7
6 person	13	8.8	359	12.5
7 person or more	14	12.5	526	23.0
With no related children under 18	34	3.3	1,227	4.9
With related children under 18				
1 child	42	8.8	1,111	9.5
2 children	40	8.5	1,023	9.8
3 children	34	13.5	732	13.8
4 children	21	17.2	456	20.3
5 or more children	13	17.8	503	33.0
TOTAL	150	10.8	3,824	12.3
White	123	5.8	3,464	7.0
Black	55	22.2	1,462	25.8
Spanish origin[b]	4	(C)	558	22.1
TOTAL	183	7.6	5,051	9.0

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, Number 111 (Washington, D.C.: 1978), Tables 1C and 7C.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Poverty data pertain to 1975.

a. Poverty as a percentage of total persons or families.

b. Persons of Spanish origin may be of any race.

c. Not given due to small sample size.

TABLE VI-24. PREVIOUS YEAR'S POVERTY AMONG PERSONS AND FAMILIES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: CENSUS 1970, MARCH 1977, AND MARCH 1978

Item and year	Persons			Families		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
Detroit SMSA						
Number below poverty threshold (000)						
1970	222	130	352	42	26	68
1977	249	135	384	55	28	83
1978	174	142	316	34	31	65
Poverty rate[a]						
1970	14.9	4.9	8.5	11.3	3.9	6.5
1977	20.4	n.a.	9.4	17.7	n.a.	7.8
1978	14.7	4.9	7.8	11.8	4.0	6.1
All U.S. SMSAs						
Number below poverty threshold (000)						
1970	7,993	5,091	13,084	1,609	1,002	2,611
1977	9,482	5,746	15,229	1,961	1,276	3,237
1978	9,203	5,657	14,859	1,925	1,216	3,141
Poverty rate[a]						
1970	12.7	6.8	9.5	9.8	5.3	7.4
1977	15.8	6.9	10.7	12.6	5.7	8.5
1978	15.4	6.8	13.9	12.5	5.4	8.3

SOURCE: Bureau of the Census, U.S. Census of Population 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C-24, Table 90, Current Population Reports, Series P-60, no. 115 (Washington, D.C.: 1978), Table 46, and Current Population Reports, Series P-60, no. 119 (Washington, D.C.: 1979), Tables 3 and 46.

a. Number below poverty threshold as a percentage of total population.

TABLE VI-27. ANNUAL COSTS OF A MODERATE STANDARD OF LIVING FOR A FAMILY OF FOUR IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1977 AND 1978

Item	1977		1978	
	Detroit	United States[a]	Detroit	United States
Food	$ 4,038	$ 4,098	$ 4,546	$ 4,609
At home[b]	3,328	3,427	3,767	3,877
Away from home	710	671	779	732
Housing	4,094	4,016	4,326	4,182
Shelter[c]	3,300	3,127	3,464	3,226
Renter costs	1,878	2,023	2,026	2,165
Homeowner costs	3,774	3,495	3,943	3,580
Furnishings and operations	794	889	869	956
Transportation[d]	1,454	1,472	1,548	1,572
Automobile owners	1,513	1,547	1,610	1,653
Clothing	1,181	1,182	1,273	1,209
Personal care	414	337	426	403
Medical care	1,105	985	1,183	1,070
Other family consumption[e]	926	909	977	956
Total consumption	13,212	13,039	14,279	14,000
Other items[f]	769	763	820	810
Personal income taxes	2,481	2,342	2,975	2,738
Other payroll taxes[g]	965	961	1,071	1,073
TOTAL COSTS	17,427	17,106	19,145	18,622

SOURCE: Bureau of Labor Statistics, News, 26 April 1978, USDL release 78-393, Table 2, and 29 April 1979, USDL release 79-305 (Washington, D.C.: periodically), Table 3.

NOTE: Family of four comprised of husband, 38, working full time, wife in the labor force, daughter, 8, and son, 13.

a. Weighted average of 56 urban areas.

b. Nutritionally adequate diet varied according to different tastes in different regions.

c. Weighted average of homeowner costs (75 percent) and renter costs (25 percent). Renter costs include heat and utilities; homeowner costs include heat and utilities and payments on 6-year-old mortgages.

d. Assumed 100 percent automobile ownership in areas of less than 1.4 million population.

e. Reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

f. Gifts and contributions, life insurance, and occupational expenses.

g. Social Security and disability.

TABLE VI-28. ANNUAL COSTS OF A MODERATE STANDARD OF LIVING FOR A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1976 AND 1977

Item	1976		1977	
	Detroit	United States[a]	Detroit	United States[a]
Food	1,843	1,914	1,986	2,035
At home[b]	1,635	1,704	1,762	1,809
Away from home	208	210	224	227
Housing	2,314	2,334	2,470	2,518
Shelter	1,458	1,490	1,592	1,632
Renter costs[c]	1,532	1,484	1,643	1,579
Homeowner costs	1,418	1,494	1,565	1,661
Furnishings and operations	856	844	878	886
Transportation	665	629	715	658
Automobile owners[d]				
Clothing	363	347	368	360
Personal care	200	202	218	214
Medical care	576	574	644	632
Other family consumption[e]	365	332	379	347
Total consumption	6,326	6,333	6,780	6,765
Other items[f]	405	405	434	433
Total costs	6,731	6,738	7,214	7,198

SOURCE: Bureau of Labor Statistics, News, 13 August 1978 (Washington, D.C.: periodically), USDL release 78-698, Table 2.

NOTE: The retired couple is assumed to be a husband, aged 65 or older, and his wife. They are assumed to be self-supporting and living in an urban area; they are in reasonably good health and take care of themselves.

a. Weighted average of 56 urban areas.

b. Nutritionally adequate diet varied according to different tastes in different regions.

c. Weighted average of homeowner costs (65 percent) and renter costs (35 percent). Renter costs include heat and utilities; homeowner costs include heat and utilities and payments on 6-year-old mortgages.

d. Assumed 100 percent automobile ownership in areas of more than 1.4 million population.

e. Reading, recreation, tobacco products, alcoholic beverages, and miscellaneous expenditures.

f. Gifts and contribution.

TABLE VI-29. TREND IN ANNUAL TOTAL BUDGET COSTS AT THREE LEVELS FOR A FAMILY OF FOUR AND A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES: 1971-1978

Year	Family of four			Retired couple		
	Low	Medium	High	Low	Medium	High
			Detroit			
1971	$ 7,074	$10,754	$15,665	$ 3,298	$ 4,784	$ 7,756
1972	7,271	11,502	16,749	3,439	5,006	8,104
1973	8,246	12,810	18,591	3,780	5,484	8,458
1974	9,138	14,390	21,142	4,267	6,116	9,489
1975	9,501	15,701	22,947	4,506	6,515	10,077
1976	9,865	16,514	24,226	4,661	6,731	10,465
1977	10,400	17,427	25,550	5,020	7,214	11,188
1978	11,596	19,145	28,172	n.a.	n.a.	n.a.
			Urban United States			
1971	7,214	10,971	15,905	3,319	4,776	7,443
1972	7,386	11,446	16,558	3,442	4,967	7,689
1973	8,181	12,626	18,201	3,763	5,414	8,043
1974	9,198	14,333	20,777	4,228	6,041	8,969
1975	9,588	15,318	22,294	4,501	6,465	9,598
1976	10,041	16,236	23,759	4,695	6,738	10,048
1977	10,481	17,106	25,202	5,031	7,198	10,711
1978	11,546	18,622	27,420	n.a.	n.a.	n.a.

SOURCE: Bureau of Labor Statistics, News, 29 April 1979 (Washington, D.C.: periodically, and U.S. Department of Labor release 79-305, Tables 1, 2, and 3, U.S. Department of Labor Release 78-698, Tables 1, 2, and 3, and similar releases for previous years.

n.a.: not available.

TABLE VI-30. CONSUMER EXPENDITURE AND INCOME PATTERN FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE NORTH CENTRAL REGION, AND THE UNITED STATES: 1972-1973

Item	Dollars, annually			Percentage of total		
	Detroit	North Central[a]	United States	Detroit	North Central[a]	United States
		Expenditures				
Food, at home						
Bakery products	117.69	105.96	103.58	1.1	1.1	1.1
Beef	248.31	187.15	179.11	2.2	2.0	1.9
Pork	121.66	107.15	101.87	1.1	1.1	1.1
Fresh milk and cream	105.52	95.10	94.67	.9	1.0	1.0
All other	700.07	653.34	675.30	6.2	6.9	7.1
Total, food at home	1,293.25	1,148.70	1,154.53	11.5	12.1	12.1
Food, away from home	491.66	424.89	422.22	4.4	4.5	4.4
Meals as pay	9.45	16.85	18.82	0.1	0.2	0.2
Total food	1,794.36	1,590.44	1,595.57	16.0	16.8	16.8
Alcoholic beverages	135.71	105.56	110.43	1.2	1.1	1.2
Tobacco products and smoking supplies	129.91	129.11	129.91	1.2	1.4	1.4
Rented shelter	451.16	475.28	571.90	4.0	5.0	6.0
Owner occupied shelter	988.60	738.50	718.51	8.8	7.8	7.6
Other lodging, exc. vacation	28.88	26.66	20.83	0.3	0.3	0.2
Total shelter	1,468.64	1,240.45	1,311.24	13.1	13.1	13.8
Natural gas	174.81	135.86	92.86	1.6	1.4	1.0
Electricity	163.91	154.96	156.80	1.5	1.6	1.7
Other fuel and utilities	78.98	144.84	159.35	0.7	1.5	1.7
Total fuel/utilities	417.70	435.66	409.01	3.7	4.6	4.3
Telephone	170.50	174.03	178.02	1.5	1.8	1.9
Housekeeping and laundry supplies	128.86	134.57	130.56	1.2	1.4	1.4
Domestic and other household service	140.21	115.42	134.90	1.3	1.2	1.4
Total household operations	439.57	424.01	443.47	3.9	4.5	4.7
Furniture	158.99	128.29	131.73	1.4	1.4	1.4
Major appliances	107.24	94.40	89.50	1.0	1.0	0.9
Other housefurnishings and equipment	205.54	172.88	165.91	1.8	1.8	1.7
Total housefurnishings and equipment	471.77	395.57	387.14	4.2	4.2	4.1
Male's clothing	260.02	210.80	216.09	2.3	2.2	2.3
Female's clothing	400.31	299.32	308.08	3.6	3.2	3.2
Baby's clothing and family repairs, alterations, services, and materials	46.64	40.66	41.21	.4	.4	.4
Total clothing	706.97	550.78	565.38	6.3	5.8	5.9

TABLE VI-30. CONSUMER EXPENDITURE AND INCOME PATTERN FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE NORTH CENTRAL REGION, AND THE UNITED STATES: 1972-1973 (cont.)

Item	Dollars, annually			Percentage of total		
	Detroit	North Central[a]	United States	Detroit	North Central[a]	United States
Expenditures (cont.)						
Dry cleaning and laundry	85.82	73.26	81.98	0.8	0.8	0.9
Vehicle purchase (net)	994.92	770.10	704.55	8.9	8.1	7.4
Vehicle finance charges	189.37	96.25	79.65	1.7	1.0	.8
Gasoline and fuels	410.44	359.40	347.61	3.7	3.8	3.7
Other vehicle operations	506.31	404.61	402.55	4.5	4.3	4.2
Other transportation	66.91	52.75	62.79	.6	.6	.7
Total transportation	2,167.95	1,683.11	1,597.16	19.3	17.7	16.8
Health insurance	168.12	200.95	195.81	1.5	2.1	2.1
Uninsured medical expenses	267.40	260.15	277.47	2.4	2.7	2.9
Nonprescription drugs and medical supplies	36.39	56.54	54.24	.3	.6	.6
Total health care	471.91	517.55	527.55	4.2	5.5	5.6
Personal care	180.92	163.02	165.21	1.6	1.7	1.7
Owned vacation home	27.53	9.99	9.96	.2	.1	.1
Vacation and pleasure trips	279.50	236.64	249.93	2.5	2.5	2.6
Boats, aircrift, and wheel goods	151.66	85.45	83.59	1.4	.9	.9
Other recreation	417.12	364.22	364.47	3.7	3.8	3.8
Total recreation	875.81	696.30	707.95	7.8	7.3	7.4
Reading	45.64	45.36	47.72	.4	.5	.5
Education	122.04	109.79	105.52	1.1	1.2	1.1
Miscellaneous	151.54	80.27	85.23	1.4	.9	.9
Total current consumption expenses	9,666.23	8,240.35	8,270.48	86.0	86.8	86.9
Personal insurance, retirement, and pensions	1,049.18	774.96	734.18	9.3	8.2	7.7
Gifts and contributions	529.21	477.05	507.67	4.7	5.0	5.3
Total outlays	11,244.62	9,492.36	9,512.33	100.0	100.0	100.0
Receipts						
Wages and salaries	11,595.96	9,054.46	8,539.60	84.3	76.0	74.8
Self-employment income	226.63	1,019.37	875.24	1.7	8.6	7.7
Social Security and railroad retirement	533.01	575.44	577.61	3.9	4.8	5.1
Government retirement, veteran's payments, and unemployment comp.	178.73	183.37	292.65	1.3	1.5	2.6
Rental income	61.87	93.36	120.87	.5	.8	1.1

TABLE VI-30. CONSUMER EXPENDITURE AND INCOME PATTERN FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE NORTH CENTRAL REGION, AND THE UNITED STATES: 1972-1973 (cont.)

Item	Dollars, annually			Percentage of total		
	Detroit	North Central[a]	United States	Detroit	North Central[a]	United States
Receipts (cont.)						
Interest and dividends	307.62	406.90	412.38	2.2	3.4	3.6
Public welfare	183.80	91.73	107.30	1.3	.8	.9
Private pensions	139.50	125.94	129.00	1.0	1.1	1.1
Support	64.38	57.99	70.38	.5	.5	.6
Other income	457.20	306.61	294.12	3.3	2.6	2.6
Total income	13,748.70	11,915.16	11,419.05	100.0	100.0	100.0
Federal income taxes	1,942.15	1,538.71	1,399.11	14.1	12.9	12.3
State and local income taxes	401.63	260.48	234.05	2.9	2.2	2.1
Personal property and other personal taxes	27.50	64.22	54.77	.2	.5	.5
Income after taxes	11,377.42	10,051.75	9,731.12	82.8	84.4	85.2
Characteristics of the average consumer unit						
Sizes (persons)	3.0	2.9	2.9	N.A.	N.A.	N.A.
Age of head	46	47	48	N.A.	N.A.	N.A.
Number of children under 18	1.1	1.0	1.0	N.A.	N.A.	N.A.
Number of persons over 64	.2	.3	.3	N.A.	N.A.	N.A.
Number of automobiles owned	1.5	1.4	1.3	N.A.	N.A.	N.A.
Families in the universe, characteristics						
Number (000)	1,416	19,543	71,220	100.0	100.0	100.0
Housing tenure						
Homeowners	n.a.	n.a.	n.a.	66.9	63.8	58.8
With mortgage	n.a.	n.a.	n.a.	41.7	35.9	33.4
Without mortgage	n.a.	n.a.	n.a.	25.0	27.8	25.3
Mortgage not reported	n.a.	n.a.	n.a.	.2	.1	.1
Renter	n.a.	n.a.	n.a.	28.9	31.8	36.8
Other including not reported	n.a.	n.a.	n.a.	4.2	4.3	4.4
Race of head						
White	n.a.	n.a.	n.a.	79.1	92.1	88.5
Black	n.a.	n.a.	n.a.	20.2	7.5	10.1
Other	n.a.	n.a.	n.a.	.7	.4	1.3

TABLE VI-30. CONSUMER EXPENDITURE AND INCOME PATTERN FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE NORTH CENTRAL REGION, AND THE UNITED STATES: 1972-1973 (cont.)

Item	Dollars, annually			Percentage of total		
	Detroit	North Central[a]	United States	Detroit	North Central[a]	United States
Families in the universe, characteristics (cont.)						
Education of head						
1-8 years	n.a.	n.a.	n.a.	17.5	21.4	21.2
9-12 years	n.a.	n.a.	n.a.	49.7	49.2	45.2
More than 12 years	n.a.	n.a.	n.a.	25.1	24.1	27.5
Not reported or no school	n.a.	n.a.	n.a.	7.8	5.3	6.0
At least one automobile owned	n.a.	n.a.	n.a.	80.4	83.0	80.1

SOURCE: Bureau of Labor Statistics, Consumer Expenditure Survey: Interview Diary and Interview Survey Data, 1972-73, Bulletin 1992 (Washington, D.C.: 1978), Tables 11 and 13.

NOTE: A consumer unit is defined as (1) a group of two persons or more, usually living together, who pool their income and draw from a common fund for their major items of expense, or (2) a person living alone or sharing a household with others, or as a roomer in a private home, lodging house, or hotel, but who is financially independent. Head of consumer unit refers to the husband in husband/wife families, the person designated as such by the other members in other types of consumer units.

The survey consisted of two independent components, a quarterly interview survey and a diary survey. A total of 29,172 households were designated in the first-year diary survey, and 30,414 in the second. In the quarterly interview survey, 12,613 households were designated for inclusion the first year, 13,014 the second.

a. Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

n.a.: not available.

N.A.: not applicable.

TABLE VI-25. CONSUMER PRICE INDEXES FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND THE URBAN UNITED STATES BY ITEM, ANNUAL AVERAGES: 1974-1978

Items	1974		1975		1976		1977		1978	
	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States
All items	149.1	147.7	160.3	161.2	168.9	170.5	180.4	181.5	204.9	194.1
Food	164.1	161.7	171.6	175.4	176.5	180.8	186.0	192.2	217.7	203.9
Food at home	165.3	162.4	171.1	175.8	173.3	179.5	183.5	190.2	219.2	205.0
Cereals & bakery products	182.1	166.1	189.8	184.8	184.5	180.6	193.7	183.5	218.6	209.9
Meats, poultry, fish, eggs	167.4	163.9	172.2	178.0	172.4	179.4	171.9	178.4	220.2	197.4
Dairy products	154.9	151.9	158.8	156.6	167.3	169.3	173.9	173.9	210.1	190.1
Fruits and vegetables	158.9	165.8	157.4	171.0	158.9	175.4	171.0	191.6	203.0	195.8
Other foods at home	164.2	162.8	177.9	184.8	184.5	189.9	215.3	224.1	248.6	245.3
Food away from home	159.2	159.4	174.1	174.3	186.4	186.1	199.2	200.3	233.7	220.3
Housing	151.0	150.6	163.8	166.8	173.2	177.2	184.6	189.6	208.8	196.3
Shelter	159.5	154.3	170.3	169.7	177.2	179.0	188.0	191.1	219.4	204.1
Rent	129.8	130.2	135.9	137.3	142.1	145.4	150.8	153.5	168.9	162.6
Homeownership	165.5	163.2	177.2	181.7	184.3	191.7	195.4	204.9	292.2	212.2
Fuel and utilities	142.3	150.2	161.6	167.8	182.8	182.7	205.7	202.2	232.9	224.5
Fuel oil and coal	208.7	214.6	226.7	235.3	248.6	250.8	285.7	283.4	268.1	254.9
Gas and electricity	144.4	145.8	171.7	169.6	197.7	188.9	223.0	213.4	258.9	247.0
Household furnishings and operation	130.5	140.5	145.0	158.1	156.6	168.5	160.5	177.0	166.5	159.3
Apparel and upkeep	132.4	136.2	137.9	142.3	142.0	147.6	146.7	154.2	150.7	151.9
Men's and boy's	135.7	136.4	144.5	142.2	151.5	147.2	154.3	154.0	147.7	152.6
Women's and girl's	123.2	134.9	126.5	138.1	128.1	141.9	130.9	146.4	140.3	142.2
Footwear	144.6	138.1	146.9	144.2	147.2	149.9	150.8	156.9	154.0	148.1
Transportation	138.7	137.7	149.1	150.6	160.2	165.5	174.7	177.3	193.9	184.2
Private	137.2	136.6	148.0	149.8	159.5	164.6	174.8	176.7	193.8	183.8
Public	156.1	148.0	160.8	158.6	168.6	174.2	172.6	182.4	197.8	194.9

TABLE VI-25. CONSUMER PRICE INDEXES FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND THE URBAN UNITED STATES BY ITEM, ANNUAL AVERAGES: 1974-1978 (cont.)

Items	1974		1975		1976		1977		1978	
	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States
Health and recreation	145.5	140.3	161.1	153.5	173.6	163.3	186.8	173.7	—	—
Medical care	162.8	150.5	187.4	168.6	209.1	184.7	234.8	202.4	265.7	251.9
Personal care	137.6	137.3	150.3	150.7	160.7	160.5	172.6	170.9	191.4	181.5
Reading and recreation	135.6	133.8	145.0	144.4	152.2	151.2	156.9	157.9	—	—
Other goods and services	138.2	137.2	149.7	147.4	156.4	153.3	164.1	159.2	192.1	183.0

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor (Lansing: 1978), Table B-17.

NOTE: Annual averages of monthly figures; 1967=100.

TABLE VI-26. CONSUMER PRICE INDEX FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, BY MONTH: 1960-1979

(1976 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
Urban wage earners and clerical workers													
1960	87.1	87.5	87.5	87.6	87.7	88.3	88.8	88.7	88.5	88.7	88.7	88.8	88.2
1961	89.1	89.2	88.8	88.7	88.7	88.8	88.6	88.8	88.2	88.5	88.3	87.8	88.7
1962	88.0	88.8	88.8	88.9	88.8	88.6	88.7	89.0	89.5	89.5	89.3	89.2	88.9
1963	89.2	89.3	89.3	88.9	89.1	90.1	90.4	90.9	89.9	90.1	90.3	90.2	89.8
1964	90.3	89.7	90.2	90.3	89.8	90.2	90.7	90.8	91.0	91.3	91.0	91.2	90.5
1965	91.4	91.0	91.2	91.9	92.3	93.1	93.0	93.0	93.0	93.5	93.6	94.0	92.6
1966	94.3	94.7	95.4	95.9	96.3	96.8	96.9	97.4	97.6	98.0	98.1	98.6	96.7
1967	98.6	98.8	99.5	99.7	99.7	99.8	100.1	100.3	100.3	100.5	101.0	101.3	100.0
1968	101.5	102.1	102.9	103.1	103.5	104.3	104.7	105.0	105.5	105.9	106.3	106.6	104.3
1969	106.9	107.4	108.9	109.4	110.0	110.8	111.1	111.8	111.9	112.4	113.0	113.8	110.6
1970	114.1	115.1	115.8	116.4	117.4	117.7	117.9	117.8	118.4	119.3	119.9	119.5	117.4
1971	120.3	120.0	120.1	120.1	120.9	121.8	121.8	122.8	122.8	122.8	123.4	123.7	121.7
1972	124.2	124.9	125.0	125.0	125.5	126.0	126.7	126.9	127.3	127.2	127.4	128.3	126.2
1973	128.5	129.7	131.1	132.4	133.4	133.7	133.8	136.8	137.3	137.9	139.0	140.0	134.5
1974	141.5	143.8	144.9	145.4	146.4	148.4	149.4	150.9	152.4	153.8	155.2	156.0	149.0
1975	155.5	156.5	157.0	157.7	158.1	159.7	160.8	161.3	162.8	163.1	163.9	164.6	160.1
1976	165.7	165.8	165.6	166.4	167.3	168.0	169.2	169.7	171.3	171.4	172.5	173.1	168.8
1977	173.8	175.1	176.8	179.0	179.3	181.0	182.5	182.6	182.8	183.1	184.5	184.4	180.4
1978	185.0	185.8	187.9	189.8	192.1	194.6	194.7	196.2	198.2	200.7	201.7	201.9	194.1
1979	204.9	208.8	211.6	213.2	214.1								
All urban consumers													
1978	185.0	185.6	188.4	190.2	192.3	194.5	194.6	195.8	197.7	200.9	202.0	202.2	194.1
1979	205.1	208.8	211.6	213.2	213.9								

SOURCE: Bureau of Labor Statistics, special release.

VII. SOCIAL WELFARE

The Michigan Department of Social Services, charged with the responsibility for administering the state's public welfare and related programs, conducts research and functions as the repository of relevant data. Published sources include the Annual Report and the monthly publication, Social Service Statistics.

Information related to other social welfare programs is available from annual reports of the various agencies that administer them, for example, the Social Security administration, the Veterans Administration, and the Railroad Retirement Board.

Data for Table VII-1 were drawn from the tabulations released by the Bureau of Economic Analysis in conjunction with its personal income statistics program. A more complete statement of those data is included at the beginning of Chapter VI.

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TABLE VII-1. TRANSFER PAYMENTS IN MICHIGAN AND THE UNITED STATES: 1958-1977

(In millions of dollars)

Year	Michigan	United States	Michigan as a percentage of the United States
1958	1,254	25,978	4.83
1959	1,154	27,064	4.26
1960	1,207	28,940	4.17
1961	1,425	32,817	4.34
1962	1,384	33,770	4.10
1963	1,411	35,838	3.94
1964	1,459	37,430	3.90
1965	1,575	40,414	3.90
1966	1,746	44,667	3.91
1967	2,079	52,595	3.95
1968	2,346	59,920	3.92
1969	2,596	66,512	3.90
1970	3,234	79,881	4.05
1971	3,829	94,111	4.07
1972	4,287	104,099	4.12
1973	4,780	118,886	4.02
1974	5,945	140,826	4.22
1975	7,822	178,166	4.39
1976	8,118	193,915	4.19
1977	8,492	208,824	4.07

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: See Table VII-2 for listing of items comprising transfer payments.

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1976 AND 1977

(In millions of dollars)

Item	Michigan		United States	
	1976	1977	1976	1977
Old Age, Survivors, and Disability Insurance	3,199	3,565	74,502	83,326
Railroad retirement and disability	81	86	3,550	3,797
Federal employees retirement	131	147	8,865	9,925
State and local gov't employees retirement	369	419	9,150	10,400
Medical insurance payments[a]	777	917	18,618	21,975
Workmen's compensation[b]	39	45	1,695	1,881
Other government disability, insurance, and retirement programs[c]	12	12	1,492	1,508
Total government retirement, disability, and insurance programs	4,608	5,193	117,872	132,812
State unemployment insurance programs	970	760	14,925	12,009
Unemployment insurance payments to federal gov't civilian employees	13	10	310	270
Unemployment insurance payments to railroad employees	7	6	219	173
Trade adjustment assistance payments	15	13	165	155
Total unemployment insurance payments, excluding those to veterans under special veterans programs	1,006	790	15,619	12,607
Educational and training assistance payments[d]	49	69	1,385	1,927
Supplemental security income	183	189	6,139	6,382
Aid to families with dependent children	778	740	10,058	10,579
General assistance program	113	105	1,227	1,242
Bonus value of food stamps	142	125	4,597	4,371
Other assistance payments[e]	32	29	1,230	1,204
Total income maintenance programs	1,253	1,194	23,303	23,839
Other government transfer payments[f]	--	--	212	195
Total governments payments to individual civilians	6,917	7,247	158,391	171,380

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1976 AND 1977 (cont.)

(In millions of dollars)

Item	Michigan		United States	
	1976	1977	1976	1977
Pensions, retirement pay, terminal leave, and mustering out pay of military personnel	363	390	15,922	17,449
Unemployment insurance for veterans	38	28	602	463
Educational payments to veterans and their dependents and survivors	160	104	4,380	3,179
Military life insurance benefit payments	29	30	938	982
Other government payments to veterans[g]	9	8	223	235
Total government payments to retired military personnel, veterans, and dependents	560	560	22,065	22,308
Payments to nonprofit institutions	226	241	5,182	5,505
Business transfer payments	375	443	8,277	9,631
Total transfer payments	8,118	8,492	193,915	208,824

SOURCE: Bureau of Economic Analysis, Regional Economic Information System.

a. Medicare.
b. Compensation to disabled government employees.
c. Payments to beneficiaries of state disability programs and beneficiares of the Panama Canal Construction Annuity Act.
d. National Science Foundation fellowships; other federal fellowships; subsistence of state marine school cadets; higher education loans - interest subsidy payments; basic education opportunity grants; area redevelopment payments, Manpower Development, Training and Assistance Act payments; and Job Corps payments.
e. Refugee Assistance payments (includes Cuban and Southeast Asia refugees), Civilian War Assistance and Enemy Aliens Act payments, foster home care in public facilities, special federal payments to selected individuals, and payments for earned income tax credit.
f. Bureau of Indian Affairs payments, education exchange, and payments for Alaska Native Claims Settlement Act.
g. Payments to paraplegics, for automobiles for disabled veterans, to war orphans, to children of disabled veterans, to prisoners of war; veterans' aid; and veterans' bonus payments by state and local government.

TABLE VII-3. ESTIMATED NUMBER AND PROPORTION OF THE POPULATION AGED 65 AND OLDER RECEIVING OASDHI CASH BENEFITS AND SSI PAYMENTS, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1977

Year	OASDHI[a]		SSI[b]		Both	
	Michigan	United States	Michigan	United States	Michigan	United States
	Number (in thousands)					
1966	634	15,611	40	2,069	--	1,007
1967	656	16,081	40	2,069	--	1,096
1968	667	16,490	38	2,024	--	1,169
1969	679	16,884	38	2,072	--	1,181
1970	695	17,374	40	2,081	--	1,243
1971	710	17,900	41	2,024	--	1,127
1972	724	18,482	41	1,933	--	1,276
1973	747	19,269	38	1,820	--	1,189
1974	763	19,834	49	2,286	--	1,483
1975	782	20,449	52	2,307	36	1,603
1976	799	21,043	47	2,148	33	1,495
1977[c]	809	21,244	53	2,337	37	1,637
	Proportion[d]					
1966	878	822	55	110	30	55
1967	863	839	52	108	29	58
1968	874	846	49	104	27	58
1969	897	854	50	105	39	61
1970	911	848	45	101	30	63
1971	915	853	53	96	31	62
1972	918	865	52	90	33	61
1973	941	884	48	84	31	56
1974	946	888	61	103	40	68
1975	951	901	63	102	44	71
1976	947	906	56	92	39	64
1977[c]	950	904	62	100	44	70

SOURCE: Social Security Administration, Social Security Bulletin, December 1967 through December 1978 (Washington, D.C.: monthly), vol. 41, no. 12 (December 1978): Table Q-3.

a. Old age, survivors, disability, and health insurance program of the federal government (Social Security).

b. For 1965-1973, data refer to old age assistance program; beginning January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

c. Figures pertain to June 1977.

d. Number per 1,000 population aged 65 and over.

TABLE VII-4. AMOUNT OF OASDHI CASH BENEFITS PAID IN MICHIGAN AND THE UNITED STATES, BY TYPE OF PROGRAM: 1972-1977

(In millions of dollars)

Program	1972	1973	1974	1975	1976	1977[a]
Michigan						
Old age and survivors insurance	1,439	1,575	1,928	2,207	2,443	2,741
Monthly benefits	1,425	1,562	1,914	2,195	2,430	2,728
Retired workers	904	998	1,195	1,386	1,536	1,724
Dependents[b]	120	128	151	171	188	207
Survivors[c]	391	427	560	631	701	778
Special age-72	10	9	8	7	6	5
Lump sum death payments	14	13	14	13	13	13
Disability insurance						
Monthly benefits	165	200	250	319	387	460
Disabled workers	132	161	212	261	317	376
Dependents	32	38	48	58	71	84
United States						
Old age and survivors insurance						
Monthly benefits	33,413	37,122	45,741	51,618	58,509	65,699
Retired workers	21,589	24,230	29,351	33,337	38,094	43,057
Dependents[b]	2,663	2,887	3,467	3,848	4,352	4,837
Survivors[c]	8,567	9,418	12,328	13,839	15,526	17,297
Special age-72	288	266	267	237	198	174
Disability insurance						
Monthly benefits	3,758	4,473	5,718	6,903	8,414	9,966
Disabled workers	3,028	3,626	4,676	5,662	6,908	8,190
Dependents	731	847	1,041	1,240	1,506	1,776

SOURCE: Social Security Administration, Social Security Bulletin, December 1972 through December 1978 (Washington, D.C.: monthly), vol. 41, no. 12 (December 1978): Table Q-15.

a. Pertains to fiscal year ended 30 September.

b. Wives, husbands, and children.

c. Children, widows, widowers, widowed mothers, and parents.

TABLE VII-6. NUMBER AND AVERAGE MONTHLY BENEFITS OF RETIRED WORKERS UNDER OASDHI, MICHIGAN AND THE UNITED STATES: DECEMBER 1967-1977

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1967	508	12,019	$ --	$85.37
1968	494	12,421	108.87	98.86
1969	537	12,822	125.62	100.40
1970	548	13,349	127.41	118.10
1971	544	13,927	144.61	132.17
1972	561	14,555	177.18	162.35
1973	585	15,365	180.80	166.40
1974	603	15,959	204.17	188.20
1975	625	16,588	224.42	207.18
1976	643	17,165	243.08	224.86
1977	662	17,821	262.11	242.98

SOURCE: Social Security Administration, Social Security Bulletin, December 1968 through December 1978 (Washington, D.C.: monthly), vol. 41, no. 12 (December 1977): Tables M-10, M-13, Q-13, and Q-14.

TABLE VII-7. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	153	4,666	$ n.a.	$36.25
1967	183	5,309	44.40	39.50
1968	201	6,086	46.75	44.75
1969	246	7,313	56.90	45.15
1970	445	9,659	53.80	50.30
1971	507	10,653	63.28	52.30
1972	590	11,069	67.96	54.10
1973	600	10,815	74.03	56.95
1974	642	11,006	80.14	64.85
1975	676	11,383	88.43	71.72
1976	653	11,184	92.28	75.48
1977	623	10,761	99.08	79.46
1978	620	10,325	115.80	86.33

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1979 (Washington, D.C.: monthly), vol. 42, no. 6 (June 1979): Table M-35.

n.a.: not available.

TABLE VII-8. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER GENERAL ASSISTANCE, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (in thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	53	663	$ n.a.	$ 36.20
1967	65	782	35.75	39.45
1968	75	826	35.00	49.15
1969	69	860	43.50	50.25
1970	113	1,056	44.60	57.85
1971	85	982	72.79	64.80
1972	63	865	96.13	72.10
1973	49	700	122.26	81.95
1974	67	851	121.92	96.35
1975	76	977	130.66	102.07
1976	66	903	143.85	116.36
1977	51	819	147.24	125.35
1978	53	762	161.29	128.11

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1979 (Washington, D.C.: monthly), vol. 42, no. 6 (June 1979): Table M-39.
n.a.: not available.

TABLE VII-9. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER OLD AGE ASSISTANCE, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (in thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	40	2,073	$ 72.55	$ 68.05
1967	40	2,073	69.40	70.15
1968	38	2,027	70.55	69.55
1969	38	2,074	73.60	73.90
1970	40	2,082	77.30	77.65
1971	41	2,024	80.10	77.50
1972	41	1,934	70.68	79.95
1973	38	1,820	73.85	76.15
1974	49	2,285	94.62	91.09
1975	52	2,307	98.72	90.93
1976	47	2,148	100.77	94.35
1977	45	2,051	107.45	96.62
1978	43	1,968	116.29	100.43

SOURCE: Social Security Administration, Social Security Bulletin, April 1975 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25, M-27, and M-28.

NOTE: For 1965 to 1973, data refer to old age assistance program; beginning in January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

TABLE VII-5. NUMBER OF MONTHLY OASDHI CASH BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFICIARY, MICHIGAN AND THE UNITED STATES: DECEMBER 1968-1977

Year	Retired workers	Disabled workers	Spouses of		Children of			Widowed parents	Widows and widowers	Total
			Retired workers	Disabled workers	Retired workers	Deceased workers	Disabled workers			
					Michigan					
1968	494	49	111	8	18	102	27	20	128	981
1969	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1970	544	58	111	10	20	112	34	21	138	1,050
1971	544	66	111	12	21	116	38	21	143	1,088
1972	561	75	111	14	21	119	44	22	148	1,128
1973	585	84	112	15	22	122	48	23	153	1,175
1974	603	95	112	17	22	122	53	23	157	1,213
1975	625	105	113	19	23	123	59	24	161	1,258
1976	643	112	114	19	23	123	62	24	164	1,291
1977	662	116	115	20	25	120	62	24	168	1,317
					United States					
1968	12,421	1,295	2,645	253	518	2,490	787	505	2,938	24,560
1969	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1970	13,870	1,492	2,681	283	542	2,691	888	523	3,227	26,228
1971	13,927	1,648	2,698	312	562	2,775	971	535	3,366	27,292
1972	14,555	1,832	2,734	350	582	2,845	1,088	540	3,509	28,476
1973	15,365	2,016	2,808	381	613	2,912	1,161	572	3,656	29,869
1974	15,958	2,237	2,826	412	619	2,893	1,263	574	3,770	30,853
1975	16,588	2,489	2,867	453	643	2,919	1,411	582	3,889	32,085
1976	17,165	2,670	2,896	474	653	2,903	1,480	579	3,995	33,023
1977	17,821	2,838	2,961	495	695	2,860	1,528	583	4,120	34,079

SOURCE: Social Security Administration, Social Security Bulletin, December 1971 through December 1978 (Washington, D.C.: monthly), vol. 41, no. 12 (December 1978), Table Q-13.
n.a.: not available.

TABLE VII-10. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO THE BLIND, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number		Amount	
	Michigan	United States	Michigan	United States
1966	1,500	83,700	$ 82.20	$ 86.85
1967	1,500	82,600	86.40	90.45
1968	1,400	80,700	91.65	92.15
1969	1,400	80,300	95.80	98.75
1970	1,400	81,000	106.45	104.35
1971	1,555	80,343	112.08	106.39
1972	1,676	79,791	114.27	112.85
1973	1,717	77,882	113.15	112.00
1974	1,705	74,616	143.64	140.57
1975	1,681	74,489	149.05	146.57
1976	1,588	76,366	148.37	152.78
1977	1,659	77,362	159.41	159.20
1978	1,715	77,135	170.85	164.40

SOURCE: Social Security Administration, Social Security Bulletin, April 1976 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25, M-27, and M-28.

TABLE VII-11. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO THE PERMANENTLY AND TOTALLY DISABLED, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number		Amount	
	Michigan	United States	Michigan	United States
1966	15,200	588,000	$ 83.05	$ 74.75
1967	18,000	646,000	84.60	80.60
1968	21,000	703,000	91.15	82.65
1969	24,700	803,000	96.00	90.15
1970	30,000	933,000	105.75	97.65
1971	37,689	1,068,383	111.29	102.25
1972	47,883	1,167,906	111.29	106.15
1973	53,687	1,274,982	121.56	109.75
1974	60,287	1,635,539	147.05	141.90
1975	66,105	1,932,681	151.38	141.15
1976	68,253	2,011,876	153.66	145.50
1977	71,074	2,109,409	160.53	150.36
1978	73,234	2,171,890	175.07	154.82

SOURCE: Social Security Administration, Social Security Bulletin, April 1976 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25, and M-28.

TABLE VII-12. ESTIMATED EXPENDITURES IN MICHIGAN BY THE VETERANS ADMINISTRATION: FISCAL YEARS 1971-1977

(In millions of dollars)

Item	1971	1972	1973	1974	1975	1976	1977
Compensation and pensions	198.5	208.1	219.8	221.8	245.3	264.7	282.7
Vocational rehabilitation and education	61.4	72.1	97.9	115.7	171.9	204.0	124.8
Direct loans	1.3	.4	.18	.1	.1	.1	.1
Insurance and indemities	31.4	34.9	22.3	25.6	29.4	26.8	30.3
Hospital and domiciliary construction	.3	1.3	.7	2.4	3.9	2.2	1.2
Administrative costs and other benefits	62.5	71.9	88.5	84.3	95.7	108.9	122.4
Total	356.1	389.3	430.1	450.5	546.4	606.6	561.6

SOURCE: Administrator of Veterans Affairs, Annual Report, 1971 through 1977 (Washington, D.C.: annually), Table 87 (1977).

TABLE VII-13. BENEFITS PAID IN MICHIGAN UNDER THE RAILROAD RETIREMENT AND UNEMPLOYMENT INSURANCE ACTS, BY CLASS OF BENEFIT: FISCAL YEARS 1965-1977

(In thousands of dollars)

Year	Retirement	Survivor	Unemployment	Sickness	Total
1965	20,190	7,025	1,609	957	29,781
1966	21,447	7,773	937	853	31,010
1967	22,920	7,983	778	924	32,605
1968	25,455	8,562	948	843	35,807
1969	27,594	9,461	995	1,464	39,513
1970	28,007	10,079	957	1,510	40,553
1971	33,828	11,520	1,974	1,494	48,817
1972	37,395	12,514	2,630	1,226	53,766
1973	42,249	14,961	1,681	1,095	59,988
1974	44,761	16,658	1,010	905	63,334
1975	50,429	19,381	2,047	952	72,809
1976	55,276	22,753	4,625	2,692	85,346
1977	59,764	24,575	3,419	2,709	90,466

SOURCE: Railroad Retirement Board, Annual Report 1965 through 1977 (Washington, D.C.: annually), Table 7 (1977).

TABLE VII-14. NUMBER OF FOOD STAMP RECIPIENTS IN MICHIGAN, FISCAL YEARS: 1970-1978

Year	(Monthly average number of persons) Total	In public assistance households	In nonpublic assistance households
1970	174,844	133,662	41,182
1971	514,234	305,030	209,204
1972	564,309	414,955	149,354
1973	539,715	427,375	112,340
1974	533,225	429,516	103,709
1975	642,412	473,839	168,573
1976	681,979	500,356	181,623
1977	631,748	490,984	140,764
1978	567,692	441,412	126,280

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

TABLE VII-15. VALUE OF FOOD STAMPS ISSUED IN MICHIGAN, FISCAL YEARS: 1970-1978

Year	Total value[a] ($000)	Purchase value[b] ($000)	Bonus value[c] ($000)	Percentage of bonus value to total value	Average bonus per person
1970	43,281	25,946	17,335	40.1	8.26
1971	141,129	66,549	74,580	52.8	12.09
1972	160,662	84,097	76,565	47.7	11.31
1973	157,637	91,482	66,155	42.0	10.21
1974	180,063	100,310	79,753	44.3	12.46
1975	257,212	133,869	123,343	48.0	16.00
1976	299,442	155,765	143,677	48.0	17.56
1977	285,500	153,314	132,186	46.3	17.46
1978	270,400	145,575	124,925	46.2	18.36

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

a. Available for food purchases.
b. Purchase requirement for recipients.
c. Difference between value and purchase requirement.

TABLE VII-16. MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS AND EXPENDITURES FOR MEDICAL ASSISTANCE IN MICHIGAN, BY TYPE OF CASE AND TYPE OF SERVICE: FISCAL YEAR 1978

Classification	Recipients[a]	Expenditures	Average per recipient
Type of case			
Age 65 and over	48,210	$ 50,961,623	$ 1,057.08
Blind	1,576	2,203,244	1,398.00
Disabled	78,726	210,283,878	2,671.09
Dependent children under age 21	471,220	157,058,473	333.30
Adults in families with dependent children	227,464	189,843,653	834.61
Type of service			
Inpatient general hospital services	127,102	224,890,930	1,769.37
Inpatient mental hospital services	5,436	30,666,708	5,641.41
Skilled nursing home services	7,660	48,302,981	6,305.87
Intermediate care facility services: Mentally retarded	3,280	58,864,531	17,946.50
Intermediate care facility services: Other	5,469	27,797,379	5,082.72
Physicians' services	662,611	103,572,176	156.31
Dental services	182,913	17,496,949	95.66
Other practitioners' services	123,278	6,826,748	55.38
Outpatient hospital services	360,778	27,346,428	75.80
Clinic services	19,637	672,312	34.24
Laboratory and radiological services	155,511	9,893,642	63.62
Home health services	3,272	1,224,253	374.16
Prescribed drugs	587,691	40,461,902	68.85
Family planning services	114,462	7,263,013	63.45
Other care	71,199	5,070,919	71.22
TOTAL	827,196	610,350,871	737.86

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal year 1978 (Lansing: 1979), Tables 2 and 3.

a. The sum of recipients by type of service adds to more than the total because more than one type of service was provided to many recipients.

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1978 AND 1979

Program	1978	1979	Percentage change
	Persons or cases		
Aid to families with dependent children			
Number of families			
Unemployed parent	13,783	12,936	- 6.1
Regular segment	179,440	185,552	+ 3.4
Number of recipients			
Unemployed parent	64,388	59,888	- 7.0
Regular segment	550,477	558,441	+ 1.4
Number of children			
Unemployed parent	36,883	34,082	- 7.6
Regular segment	388,177	390,306	+ 0.5
General assistance			
Cases with children	3,836	3,625	- 5.5
Cases without children	37,411	37,754	+ 0.9
Number of recipients	54,352	53,443	- 1.7
Emergency assistance			
Families receiving AFDC	4,777	2,057	- 56.9
Families not receiving AFDC	489	317	- 35.2
Recipients receiving AFDC	17,742	7,299	- 58.9
Recipients not receiving AFDC	1,050	1,069	+ 1.8
Food Stamps			
Households receiving other public assistance	138,906	164,050	+ 18.1
Households not receiving other public assistance	54,083	63,625	+ 17.6
Recipients receiving other public assistance	432,782	494,718	+ 14.3
Recipients not receiving other public assistance	121,035	140,676	+ 16.2
Total recipients of money payments	785,973	808,655	+ 2.9
	Amounts ($000)		
Aid to families with dependent children			
Unemployed parent	5,907.2	5,845.8	+ 1.0
Regular segment	52,266.1	57,192.2	+ 9.4
General assistance	8,315.4	8,376.8	+ 0.7
Emergency assistance			
Receiving AFDC	652.7	378.3	- 42.0
Not receiving AFDC	64.2	67.0	+ 4.2

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1978 AND 1979 (cont.)

Program	1978	1979	Percentage change
	Amounts ($000) (cont.)		
Food stamps			
Purchase value	11,849.0	(a)	--
Bonus value	9,891.4	13,681.5	+ 38.3
Cuban relief	9.0	3.2	- 64.1
Medical assistance	73,432.7	90,848.1	+ 23.7
Total amount of money payments	77,097.2	85,541.5	+ 11.0
	Amounts per family or recipient		
Aid to families with dependent children			
Per family			
Unemployed parent	428.59	451.90	+ 5.4
Regular segment	291.27	308.23	+ 5.8
Per recipient			
Unemployed parent	91.74	97.61	+ 6.4
Regular segment	94.95	102.41	+ 7.9
General assistance			
Per case	201.60	202.44	+ 0.4
Per recipient	152.99	156.74	+ 2.5
Emergency assistance			
Per case	136.15	187.56	+ 37.8
Per recipient	38.15	53.21	+ 39.5
Food stamps			
Bonus per household	51.25	60.09	+ 17.2
Bonus per recipient	17.86	21.53	+ 20.5
Total expenditures per family recipient	98.09	105.78	+ 7.8

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1979, Table 1.

a. New federal regulations eliminated the purchase requirement effective 1 January 1979.

TABLE VII-18. ERROR RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1973-1977

(Percentage of total cases)

Reporting period	Source		Type			
	Agency	Client	Ineligible	Overpayment	Underpayment	Total
Apr-Sep 1973	15.4	15.6	5.8	20.3	4.9	31.0
Jan-Jun 1974	20.6	20.8	7.8	24.8	8.9	41.4
Jul-Dec 1974	22.5	21.4	7.8	27.9	8.2	43.9
Jan-Jun 1975	19.6	21.0	8.0	25.4	7.2	40.6
Jul-Dec 1975	17.7	17.3	6.7	20.8	7.5	35.0
Jan-Jun 1976	19.8	16.9	5.4	24.6	6.7	36.7
Jul-Dec 1976	15.8	15.6	4.9	19.4	7.0	31.4
Jan-Jun 1977	16.3	12.1	4.3	16.1	8.1	28.4
Jul-Dec 1977	13.8	13.8	4.4	17.2	7.3	29.0

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the July-December 1977 Reporting Period (Lansing: 1978).

TABLE VII-19. MISPAYMENT RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1973-1977

(Percentage of total funds)

Reporting period	Ineligible cases	Overpayment cases	Underpayment cases	Total
Apr-Sep 1973	5.2	4.9	0.5	10.6
Jan-Jun 1974	7.7	6.7	1.0	15.4
Jul-Dec 1974	7.2	7.5	0.8	15.4
Jan-Jun 1975	7.2	6.5	0.8	14.5
Jul-Dec 1975	6.4	5.5	1.0	12.9
Jan-Jun 1976	5.3	6.5	0.6	12.4
Jul-Dec 1976	4.8	5.1	0.7	10.6
Jan-Jun 1977	4.4	4.9	1.0	10.3
Jul-Dec 1977	4.0	4.7	1.2	9.9

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the July-December 1977 Reporting Period (Lansing: 1978).

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977

County	Benefit category					Adult beneficiaries		
	Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Alcona	1,551	220	375	302	306	1,169	1,283	2,754
Alger	978	186	212	291	263	787	852	1,930
Allegan	5,763	866	1,178	1,503	1,365	3,967	5,205	10,675
Alpena	2,953	479	742	939	920	2,200	2,894	6,033
Antrim	1,956	250	380	394	390	1,357	1,619	3,370
Arenac	1,628	286	388	425	388	1,262	1,428	3,115
Baraga	1,006	192	268	290	263	861	868	2,019
Barry	3,223	458	668	777	722	2,251	2,820	5,848
Bay	8,606	1,355	1,948	2,540	2,792	6,006	8,695	17,241
Benzie	1,357	181	252	302	235	902	1,123	2,327
Berrien	15,129	2,405	2,742	4,648	3,698	9,955	14,019	28,622
Branch	3,581	497	606	1,069	784	2,260	3,208	6,537
Calhoun	11,727	2,257	1,927	3,138	2,832	7,634	11,109	21,881
Cass	3,633	500	635	1,043	807	2,387	3,188	6,618
Charlevoix	2,171	257	427	512	464	1,446	1,873	3,831
Cheboygan	2,152	317	475	520	506	1,535	1,915	3,970
Chippewa	2,939	420	632	788	762	2,114	2,639	5,541
Clare	3,041	508	645	762	576	2,259	2,511	5,532
Clinton	2,693	346	647	792	727	1,845	2,568	5,205
Crawford	951	163	199	253	176	708	781	1,742
Delta	3,658	602	849	1,099	1,023	2,655	3,477	7,231
Dickinson	3,328	423	689	580	906	2,328	3,018	5,926
Eaton	4,364	529	930	1,232	1,146	2,911	4,058	8,201
Emmet	2,432	290	472	588	577	1,600	2,171	4,359
Genesee	26,639	6,740	6,174	11,334	8,746	19,997	28,302	59,633

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 (cont.)

County	Benefit category					Adult beneficiaries		
	Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Gladwin	2,169	402	509	548	458	1,706	1,832	4,086
Gogebic	2,930	469	678	738	953	2,203	2,827	5,768
Grand Traverse	4,964	681	830	1,052	1,051	3,140	4,386	8,578
Gratiot	3,372	465	733	860	979	2,306	3,243	6,409
Hillsdale	3,681	540	789	915	857	2,548	3,319	6,782
Houghton	4,450	607	1,082	898	1,270	3,386	4,023	8,307
Huron	4,043	439	1,029	950	1,135	2,909	3,737	7,596
Ingham	16,556	2,553	3,059	5,277	4,496	10,349	16,315	31,941
Ionia	3,908	604	761	1,182	973	2,609	3,637	7,428
Iosco	3,132	433	687	672	618	2,324	2,546	5,542
Iron	2,194	362	542	419	671	1,756	2,013	4,188
Isabella	2,510	404	543	1,065	691	1,756	2,392	5,213
Jackson	11,507	1,832	2,038	3,231	2,948	7,331	10,994	21,556
Kalamazoo	14,167	2,187	2,352	3,568	3,456	8,505	13,657	25,730
Kalkaska	988	171	217	247	182	753	805	1,805
Kent	34,504	4,589	6,078	8,647	8,522	21,021	32,672	62,340
Keweenaw	419	71	121	67	99	352	358	777
Lake	1,370	212	262	298	224	1,004	1,064	2,366
Lapeer	3,489	647	746	1,539	917	2,525	3,274	7,338
Leelanau	1,363	134	282	234	231	923	1,087	2,244
Lenawee	7,210	1,121	1,329	1,831	1,873	4,545	6,988	13,364
Livingston	4,376	688	899	1,412	1,105	3,018	4,050	8,480
Luce	758	177	124	337	155	563	651	1,551
Mackinac	1,291	191	258	326	266	922	1,084	2,332
Macomb	35,432	6,823	7,501	12,477	12,836	24,994	37,598	75,069

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 (cont.)

County	Benefit category					Adult beneficiaries		
	Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Manistee	2,924	361	474	511	620	1,899	2,480	4,890
Marquette	5,012	877	1,094	1,443	1,391	3,678	4,696	9,817
Mason	2,768	305	512	484	554	1,771	2,368	4,623
Mecosta	2,590	413	511	738	543	1,828	2,229	4,795
Menominee	2,805	416	629	644	737	2,047	2,540	5,231
Midland	3,528	494	959	1,174	1,152	2,578	3,555	7,307
Missaukee	980	156	255	228	230	748	873	1,849
Monroe	7,438	1,369	1,787	2,572	2,236	5,209	7,621	15,402
Montcalm	4,724	754	995	1,112	1,039	3,336	4,176	8,624
Montmorency	1,317	213	298	244	268	1,009	1,087	2,340
Muskegon	12,451	2,669	2,733	4,619	3,693	9,156	12,390	26,165
Newaygo	3,210	483	658	783	704	2,280	2,775	5,838
Oakland	60,366	8,849	12,728	17,393	19,514	39,333	62,124	118,850
Oceana	2,289	360	473	638	486	1,660	1,948	4,246
Ogemaw	2,025	397	479	520	417	1,639	1,679	3,838
Ontonagon	1,159	215	286	325	332	942	1,050	2,317
Osceola	2,088	363	490	548	482	1,570	1,853	3,971
Oscoda	894	155	217	228	181	711	736	1,675
Otsego	1,387	192	300	474	297	985	1,191	2,650
Ottawa	9,649	1,072	2,276	2,268	2,574	6,407	9,164	17,839
Presque Isle	1,604	269	447	416	440	1,288	1,472	3,176
Roscommon	2,998	459	617	459	507	2,247	2,334	5,040
Saginaw	14,474	2,914	3,475	5,829	4,839	10,609	15,093	31,531
St. Clair	10,829	1,435	2,201	2,828	2,985	7,203	10,247	20,278
St. Joseph	5,245	629	867	1,034	1,081	3,220	4,602	8,856

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Alcona	198	23.9	$ 120.76	193	24.9	$ 129.13
Alger	220	26.9	122.08	215	30.7	142.94
Allegan	921	116.5	126.53	899	123.2	137.07
Alpena	452	57.6	127.51	470	68.1	144.85
Antrim	267	35.3	132.21	275	42.0	152.61
Arenac	268	37.4	139.69	278	41.6	149.52
Baraga	234	28.3	120.94	229	29.0	126.54
Barry	390	56.0	143.66	383	60.5	157.96
Bay	1,268	168.8	133.15	1,255	187.4	149.30
Benzie	193	30.5	157.99	196	35.5	181.15
Berrien	2,892	371.9	128.59	2,922	422.6	144.63
Branch	975	73.2	75.06	918	76.6	83.46
Calhoun	2,163	323.2	149.41	2,306	377.7	163.78
Cass	556	69.4	124.74	547	78.4	143.39
Charlevoix	282	31.0	110.04	292	36.5	125.12
Cheboygan	324	36.7	113.14	334	42.7	127.82
Chippewa	561	77.0	137.26	598	96.2	160.92
Clare	324	39.6	122.20	330	45.0	136.37
Clinton	287	33.1	115.18	285	38.6	135.52
Crawford	92	10.0	108.98	98	12.9	131.66
Delta	754	93.8	124.35	761	101.4	133.28
Dickinson	388	38.3	98.84	367	38.8	105.76
Eaton	541	74.5	137.63	553	87.5	158.26
Emmet	321	42.4	132.17	311	45.0	144.84
Genesee	4,987	715.8	143.53	5,114	810.5	158.48
Gladwin	310	41.3	133.12	320	46.9	146.56
Gogebic	500	50.9	101.79	470	53.1	112.97
Grand Traverse	784	130.0	165.79	820	151.5	184.74
Gratiot	611	85.6	140.13	595	92.6	155.60
Hillsdale	630	102.2	162.20	591	103.6	175.22
Houghton	900	103.1	114.60	877	112.0	127.69
Huron	633	97.8	154.50	602	104.9	174.33
Ingham	2,717	375.3	138.13	2,661	410.3	154.18
Ionia	671	92.7	138.17	627	97.3	155.25
Iosco	269	29.3	108.90	271	29.8	109.81

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979 (cont.)

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Iron	366	39.9	$ 109.07	375	46.3	$ 123.50
Isabella	925	70.1	85.47	906	83.9	92.63
Jackson	1,588	216.6	136.40	1,586	246.2	155.26
Kalamazoo	2,392	311.5	130.25	2,378	340.3	143.09
Kalkaska	153	22.3	145.65	162	25.6	158.01
Kent	4,613	631.4	136.87	4,761	745.5	156.59
Keweenaw	63	6.2	97.65	62	6.9	111.58
Lake	329	34.7	105.35	313	36.3	116.06
Lapeer	635	104.3	164.29	1,022	126.3	123.55
Leelanau	107	11.1	103.45	101	12.0	118.69
Lenawee	951	143.3	150.64	948	160.0	168.82
Livingston	576	62.5	108.46	603	73.6	121.99
Luce	388	38.4	99.07	348	41.6	119.53
Mackinac	240	25.5	106.19	245	30.5	124.56
Macomb	3,667	463.1	126.30	3,747	529.3	141.26
Manistee	320	33.8	105.60	302	36.7	121.62
Marquette	713	78.5	110.16	716	90.2	125.95
Mason	389	45.8	117.66	376	50.7	134.82
Mecosta	414	50.3	121.44	404	54.0	133.62
Menominee	431	42.7	99.12	418	46.0	110.07
Midland	477	64.5	135.31	500	74.7	149.44
Missaukee	175	24.9	142.50	186	31.3	168.30
Monroe	917	105.7	115.33	998	129.8	130.09
Montcalm	805	117.4	145.86	782	122.9	157.19
Montmorency	135	13.0	96.62	146	16.3	111.49
Muskegon	2,465	297.5	120.71	2,527	341.1	135.00
Newaygo	554	62.5	112.90	573	73.3	127.95
Oakland	5,326	711.0	133.49	5,589	835.0	149.40
Oceana	385	45.4	117.82	367	46.8	127.52
Ogemaw	409	41.7	101.94	422	49.2	116.56
Ontonagon	256	29.5	115.39	253	32.2	127.29
Osceola	343	42.8	124.65	356	51.6	145.03
Oscoda	140	15.9	113.89	120	14.8	123.65
Otsego	294	33.1	112.53	286	39.9	139.63
Ottawa	733	105.9	144.53	756	125.3	165.75

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979 (cont.)

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Presque Isle	318	37.9	$ 119.33	311	41.1	$ 132.03
Roscommon	246	34.5	140.26	245	37.9	154.70
Saginaw	2,679	382.9	142.91	2,679	430.5	160.70
St. Clair	1,406	172.4	122.65	1,431	200.6	140.15
St. Joseph	622	81.2	130.53	607	86.2	142.05
Sanilac	534	84.1	157.54	568	100.0	176.00
Schoolcraft	276	44.3	160.44	276	50.6	183.18
Shiawassee	695	93.7	134.78	738	111.8	151.50
Tuscola	1,021	107.9	105.64	996	118.5	118.93
Van Buren	1,263	164.7	130.40	1,251	187.0	149.46
Washtenaw	1,848	271.2	146.75	1,829	299.8	163.89
Wayne	41,919	5,530.1	131.92	42,378	6,149.0	145.10
Wexford	435	55.5	127.55	438	64.5	147.35
TOTAL	113,819	14,931.6	131.19	115,344	16,799.0	145.64

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1978, Table 17, and January 1979, Table 17.

NOTE: Social Security Income comprises programs formerly under aid to the blind, aid to the aged, and aid to the disabled. The dollar amounts indicated include the federal payment as well as state supplementation.

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 (cont.)

County	Benefit category					Adult beneficiaries		Total
	Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower or parent	Men	Women	
Sanilac	4,018	496	966	949	1,057	2,921	3,616	7,486
Schoolcraft	1,031	170	280	285	268	796	953	2,034
Shiawassee	4,559	768	964	1,577	1,255	3,039	4,507	9,123
Tuscola	3,979	648	1,023	1,476	1,210	2,983	3,877	8,336
Van Buren	6,491	1,003	1,140	1,897	1,410	4,298	5,746	11,941
Washtenaw	11,868	2,345	1,965	4,034	2,880	7,348	11,710	23,092
Wayne	179,628	36,642	34,018	63,259	58,292	126,719	181,861	371,839
Wexford	2,483	414	519	652	598	1,758	2,256	4,666
MICHIGAN	667,053	115,834	134,545	206,552	192,612	459,059	650,985	1,316,596

SOURCE: Social Security Administration, special release.

a. Includes "special" primary beneficiaries.

b. Includes "special" wife beneficiaries.

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY: FISCAL YEAR 1978

(Thousands of dollars)

County	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Alcona	1,313	466	1,097	5,154	1,279	189
Alger	1,027	366	777	3,129	1,215	233
Allegan	5,962	2,141	3,803	19,384	6,278	1,009
Alpena	2,811	995	2,459	10,157	4,232	467
Antrim	1,768	629	1,214	6,584	1,645	288
Arenac	1,490	538	1,342	5,375	1,719	319
Baraga	1,058	377	766	3,318	1,100	215
Barry	3,568	1,278	2,155	10,701	3,406	417
Bay	9,645	3,449	6,342	30,400	12,950	1,464
Benzie	1,313	471	817	4,353	1,035	213
Berrien	16,487	5,942	10,689	51,028	18,151	3,352
Branch	3,784	1,373	2,255	11,995	4,040	682
Calhoun	13,429	4,836	9,809	40,653	13,610	2,649
Cass	3,900	1,406	2,316	11,796	3,960	631
Charlevoix	2,247	804	1,199	7,201	2,136	270
Cheboygan	2,077	743	1,434	7,077	2,215	327
Chippewa	3,081	1,101	1,878	9,394	3,457	592
Clare	2,317	835	2,454	10,056	2,907	380
Clinton	3,035	1,079	1,621	8,635	3,342	315
Crawford	687	244	759	3,171	899	87
Delta	4,564	1,628	2,671	11,370	4,777	736
Dickinson	4,101	1,470	1,764	10,582	3,745	315
Eaton	4,927	1,769	2,452	13,940	5,298	577
Emmet	2,402	854	1,238	7,902	2,759	304
Genesee	30,233	10,789	34,575	94,788	45,492	6,606

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY: FISCAL YEAR 1978 (cont.)

(Thousands of dollars)

County	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Gladwin	1,738	624	2,028	7,271	2,064	320
Gogebic	3,660	1,303	2,087	9,487	3,787	420
Grand Traverse	4,842	1,730	2,870	16,568	5,039	911
Gratiot	4,487	1,619	2,045	10,953	4,192	598
Hillsdale	4,286	1,553	2,367	12,101	3,816	711
Houghton	5,128	1,833	2,520	14,402	4,946	907
Huron	4,579	1,633	1,921	13,262	4,630	713
Ingham	19,175	6,843	11,955	60,901	23,121	6,961
Ionia	4,927	1,764	2,833	12,837	4,698	708
Iosco	2,610	937	2,225	10,471	2,835	261
Iron	2,502	896	1,573	7,294	2,565	350
Isabella	2,711	970	1,873	8,673	3,493	740
Jackson	13,336	4,780	8,611	40,513	14,549	1,746
Kalamazoo	15,939	5,684	9,413	50,436	17,085	2,711
Kalkaska	826	297	763	3,213	833	168
Kent	39,129	14,000	20,334	120,363	41,778	5,519
Keweenaw	378	136	277	1,420	374	66
Lake	1,220	446	883	4,135	899	332
Lapeer	3,954	1,425	3,203	12,030	5,611	828
Leelanau	1,328	474	582	4,477	1,076	99
Lenawee	7,892	2,842	5,095	24,055	8,773	1,051
Livingston	3,846	1,378	3,445	15,731	6,369	547
Luce	911	324	730	2,491	836	287
Mackinac	1,220	441	772	4,134	1,229	226
Macomb	28,804	10,262	33,316	129,173	64,563	4,208

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY: FISCAL YEAR 1978 (cont.)

(Thousands of dollars)

County	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Manistee	3,058	1,093	1,651	9,379	2,556	305
Marquette	6,070	2,154	4,021	16,629	6,600	705
Mason	3,097	1,112	1,341	9,054	2,501	37
Mecosta	2,541	918	1,903	8,593	2,536	432
Menominee	3,236	1,162	1,702	8,882	3,043	388
Midland	3,282	1,178	2,430	13,403	5,901	587
Missaukee	934	338	714	3,177	906	197
Monroe	7,969	2,853	7,057	25,840	11,531	1,136
Montcalm	5,020	1,813	3,232	15,460	4,775	915
Montmorency	965	344	1,020	4,658	1,173	117
Muskegon	13,831	4,908	12,340	44,617	18,138	2,778
Newaygo	3,112	1,129	2,055	10,339	3,087	604
Oakland	58,080	20,785	44,955	237,080	102,163	6,465
Oceana	2,463	885	1,818	7,155	2,236	383
Ogemaw	1,730	621	1,997	6,494	1,940	389
Ontonagon	1,112	397	905	3,894	1,345	249
Osceola	2,201	790	1,700	6,733	1,977	378
Oscoda	741	272	716	2,872	835	128
Otsego	1,112	399	988	4,799	1,614	265
Ottawa	10,093	3,599	5,153	34,940	12,120	858
Presque Isle	1,637	582	1,212	5,466	1,877	306
Roscommon	1,907	685	2,340	10,516	2,132	257
Saginaw	17,105	6,106	14,378	51,474	24,187	3,624
St. Clair	12,217	4,387	6,061	34,836	13,432	1,588
St. Joseph	5,406	1,960	2,736	17,855	5,160	667

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY: FISCAL YEAR 1978 (cont.)

(Thousands of dollars)

County	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Sanilac	4,595	1,661	2,276	13,475	4,501	647
Schoolcraft	1,220	438	800	3,479	1,246	324
Shiawassee	5,568	1,994	3,651	15,347	6,343	796
Tuscola	4,919	1,780	3,168	13,674	5,867	898
Van Buren	7,081	2,540	4,696	20,736	6,556	1,390
Washtenaw	13,692	4,908	10,813	42,749	16,124	2,325
Wayne	257,060	92,813	167,324	624,400	282,997	53,993
Wexford	2,525	901	1,993	8,374	2,695	480
TOTAL	772,231	277,284	540,757	2,330,914	940,900	138,975

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1978 (Washington, D.C.: 1979), county summaries section.

TABLE VII-23. MONTHLY AVERAGE NUMBER OF MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS, BY COUNTY: FISCAL YEARS 1977 AND 1978

County	Number		County	Number	
	1977	1978		1977	1978
Alcona	372	339	Lake	684	637
Alger	488	389	Lapeer	2,326	2,788
Allegan	3,221	2,757	Leelanau	255	262
Alpena	1,293	1,185	Lenawee	3,051	2,628
Antrim	707	581	Livingston	1,994	1,999
Arenac	740	708	Luce	693	617
Baraga	449	435	Mackinac	472	399
Barry	1,717	1,480	Macomb	15,941	14,028
Bay	4,890	4,523	Manistee	866	726
Benzie	577	476	Marquette	1,885	1,797
Berrien	9,693	8,764	Mason	983	835
Branch	1,821	2,183	Mecosta	1,261	1,181
Calhoun	7,802	7,274	Menominee	797	721
Cass	1,885	1,729	Midland	2,282	2,065
Charlevoix	669	591	Missaukee	468	427
Cheboygan	994	859	Monroe	3,780	3,332
Chippewa	1,336	1,245	Montcalm	1,987	1,909
Clare	1,391	1,266	Montmorency	303	291
Clinton	1,041	930	Muskegon	10,021	9,176
Crawford	482	416	Newaygo	1,735	1,690
Delta	1,703	1,548	Oakland	24,038	20,596
Dickinson	739	671	Oceana	1,217	1,109
Eaton	1,852	1,621	Ogemaw	997	1,047
Emmet	791	716	Ontonagon	543	500
Genesee	23,747	20,750	Osceola	911	777
Gladwin	870	885	Oscoda	346	308
Gogebic	819	835	Otsego	620	558
Grand Traverse	1,713	1,627	Ottawa	2,854	2,555
Gratiot	1,698	1,592	Presque Isle	518	440
Hillsdale	1,518	1,421	Roscommon	764	690
Houghton	1,675	1,653	Saginaw	11,927	10,851
Huron	1,158	1,045	St. Clair	5,758	5,035
Ingham	12,181	11,029	St. Joseph	1,985	1,783
Ionia	2,253	2,009	Sanilac	1,325	1,279
Iosco	874	788	Schoolcraft	506	480
Iron	685	681	Shiawassee	2,341	2,043
Isabella	2,260	2,406	Tuscola	2,167	2,195
Jackson	6,500	5,724	Van Buren	4,266	4,022
Kalamazoo	8,057	7,102	Washtenaw	7,637	6,628
Kalkaska	558	495	Wayne	150,200	165,180
Kent	16,425	14,835	Wexford	1,338	1,153
Keweenaw	72	82			
			Michigan	403,558	394,382

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid), Fiscal Year 1977 (Lansing: 1978), Table 9, and Medical Assistance (Medicaid), Fiscal Year 1978 (Lansing: 1979), Table 7.

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Alcona	729	49.3	$ 67.57	888	61.2	$ 68.94
Alger	805	62.7	77.91	865	67.5	78.05
Allegan	5,766	448.5	77.79	5,695	469.1	82.37
Alpena	2,465	207.0	84.00	2,615	245.1	93.74
Antrim	882	64.8	73.42	1,046	76.1	72.78
Arenac	1,708	132.1	77.36	1,673	141.2	84.41
Baraga	771	51.7	66.99	810	62.7	77.46
Barry	2,766	227.2	82.15	2,988	266.4	89.15
Bay	8,593	740.1	86.12	9,083	822.0	90.50
Benzie	903	52.8	58.45	1,041	75.8	72.78
Berrien	18,812	1,595.3	84.80	20,489	1,929.3	94.16
Branch	2,239	179.7	80.24	2,425	200.1	82.52
Calhoun	14,855	1,341.9	90.33	15,277	1,460.1	95.57
Cass	3,730	287.5	77.09	3,682	306.2	83.17
Charlevoix	1,011	72.6	72.51	1,141	85.3	74.76
Cheboygan	1,908	131.9	69.11	2,096	146.8	70.05
Chippewa	2,727	203.7	74.70	2,751	228.1	82.92
Clare	2,814	218.5	77.66	2,939	257.5	87.61
Clinton	2,113	162.3	76.81	2,095	172.7	82.42
Crawford	1,051	73.6	70.00	1,210	90.5	74.81
Delta	2,495	191.6	76.80	2,659	222.9	83.83
Dickinson	1,173	69.1	58.93	1,142	76.3	66.84
Eaton	3,212	241.9	75.32	3,136	268.8	85.72
Emmet	1,258	88.3	70.18	1,306	102.1	78.21
Genesee	45,403	3,991.7	87.92	46,360	4,928.7	106.31
Gladwin	2,145	151.8	70.77	2,125	170.5	80.21
Gogebic	1,972	129.5	65.67	2,012	156.1	77.58
Grand Traverse	2,136	173.7	81.33	2,330	192.4	82.56
Gratiot	2,752	217.4	78.99	3,002	246.4	82.09
Hillsdale	2,527	192.0	76.00	2,608	210.2	80.61
Houghton	3,661	276.6	75.55	3,758	324.7	86.41
Huron	1,976	131.2	66.40	1,973	150.8	76.43
Ingham	24,814	2,506.1	101.00	24,239	2,651.8	109.40
Ionia	3,652	306.4	83.90	3,670	355.2	96.78
Iosco	2,007	144.5	72.00	2,087	167.8	80.41

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979 (cont.)

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Iron	1,027	69.5	$ 67.65	1,046	71.9	$ 68.73
Isabella	3,621	287.6	79.42	3,732	343.5	92.05
Jackson	10,563	935.5	88.56	10,058	971.4	96.58
Kalamazoo	14,455	1,376.2	95.21	15,271	1,540.3	100.87
Kalkaska	1,172	85.5	72.91	1,337	106.7	79.83
Kent	29,691	2,588.6	87.18	27,995	2,713.0	96.91
Keweenaw	183	10.1	55.32	197	13.4	67.91
Lake	1,476	97.2	65.85	1,355	105.0	78.63
Lapeer	3,862	287.4	74.41	4,157	327.6	78.81
Leelanau	409	27.0	66.05	444	29.9	67.41
Lenawee	5,733	499.9	87.21	5,599	527.1	94.13
Livingston	3,430	311.9	90.94	3,375	324.2	96.05
Luce	655	41.6	63.47	644	42.5	66.06
Mackinac	893	59.4	66.51	1,048	75.8	72.37
Macomb	26,325	2,368.0	89.95	26,567	2,610.7	98.27
Manistee	1,379	91.3	66.24	1,483	112.1	75.59
Marquette	3,452	269.9	78.17	3,670	365.8	99.67
Mason	1,826	125.8	68.89	1,864	135.0	72.44
Mecosta	2,566	185.4	72.27	2,710	220.7	81.43
Menominee	1,667	110.1	66.07	1,828	136.5	74.65
Midland	4,426	375.9	84.92	4,626	438.7	94.84
Missaukee	1,039	73.9	71.15	1,021	72.2	70.73
Monroe	7,060	638.1	90.39	6,996	688.5	98.42
Montcalm	3,661	279.1	76.25	3,570	283.1	79.30
Montmorency	891	56.8	63.71	1,001	74.7	74.59
Muskegon	19,254	1,621.4	84.21	18,639	1,700.4	91.23
Newaygo	3,483	258.3	74.16	3,708	273.2	73.69
Oakland	39,477	3,641.7	92.32	38,763	4,152.2	107.12
Oceana	2,432	187.9	77.26	2,408	192.3	79.87
Ogemaw	1,857	133.5	71.89	1,912	159.7	83.51
Ontonagon	972	69.9	71.87	973	75.4	77.50
Osceola	1,841	136.8	74.29	1,926	140.8	73.12
Oscoda	642	39.7	61.84	636	53.0	83.30
Otsego	712	48.1	67.60	757	54.1	71.51
Ottawa	4,509	344.0	76.28	4,293	355.5	82.81

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1978 AND 1979 (cont.)

County	1978			1979		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipients	Number of recipients	Total ($000)	Average per recipient
Presque Isle	917	58.4	$ 63.67	850	58.9	$ 69.35
Roscommon	1,338	108.6	81.17	1,493	126.5	84.70
Saginaw	25,170	2,484.7	98.72	26,212	2,776.8	105.94
St. Clair	11,747	1,007.2	85.74	11,921	1,143.1	95.89
St. Joseph	3,989	342.9	85.97	3,873	341.1	88.07
Sanilac	3,321	271.6	81.79	3,249	270.4	82.24
Schoolcraft	765	54.5	71.25	841	62.8	74.69
Shiawassee	4,685	394.3	84.16	4,361	377.4	86.55
Tuscola	3,313	246.3	74.33	3,607	314.8	87.26
Van Buren	9,378	819.6	87.39	9,648	876.6	90.86
Washtenaw	14,385	1,585.3	110.21	14,112	1,664.2	117.93
Wayne	320,287	36,718.5	114.64	337,513	40,488.3	119.96
Wexford	2,246	157.1	69.94	2,170	164.8	75.93
TOTAL	785,973	77,097.2	98.09	808,655	85,541.5	105.78

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1978 and January 1979, Table 2.

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY: FISCAL YEAR 1978

County	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Alcona	$ 113,347	$ 38,264	$ 24,336	$ 405,583	$ 64,040	$ 57,679	$ 753,771
Alger	198,397	766	11,838	310,615	76,662	50,835	707,990
Allegan	1,231,561	111,972	1,413,670	862,156	592,848	400,271	5,268,019
Alpena	563,503	124,010	580,974	221,652	293,432	175,199	2,164,783
Antrim	234,676	5,564	269,699	307,134	121,723	81,174	1,100,319
Arenac	365,163	8,935	202,804	114,605	181,567	93,568	1,093,793
Baraga	177,200	5,879	378,679	---	66,962	72,629	758,014
Barry	756,313	51,649	845,953	622,257	331,601	199,123	3,142,638
Bay	2,407,529	263,977	1,748,025	976,597	1,352,580	634,783	8,137,211
Benzie	269,500	17,846	161,611	139,321	115,698	77,999	862,939
Berrien	4,424,882	317,990	2,479,501	1,930,678	1,818,588	1,134,125	14,331,740
Branch	712,132	19,215	4,232,151	12,760,839	296,583	206,415	18,528,213
Calhoun	4,623,487	497,477	2,206,170	1,342,725	2,242,901	1,046,343	13,617,799
Cass	810,640	56,370	430,925	774,671	361,323	207,305	2,976,012
Charlevoix	186,359	58,097	187,982	335,440	97,202	96,277	1,043,131
Cheboygan	432,379	49,063	135,256	317,512	185,653	134,891	1,415,196
Chippewa	610,521	44,598	902,829	234,184	216,506	201,740	2,385,888
Clare	539,252	28,095	649,216	326,385	341,575	192,290	2,295,104
Clinton	383,748	57,503	3,535	454,383	219,399	113,457	1,409,083
Craw8ford	198,056	---	94,582	---	96,537	51,413	523,364
Delta	577,775	69,162	1,334,833	860,297	293,259	286,334	3,609,659
Dickinson	220,090	53,225	389,775	460,406	97,721	103,249	1,412,050
Eaton	600,810	127,840	503,573	1,056,469	350,421	263,725	3,167,343
Emmet	267,634	44,029	315,728	791,505	129,739	112,099	1,757,394
Genesee	12,772,421	621,752	5,190,456	2,495,827	7,804,836	3,253,088	37,214,709

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY: FISCAL YEAR 1978 (cont.)

County	Inpatient hospital		Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total [a]
	General hospital	Mental hospital					
Gladwin	$ 487,506	$ 8,813	$ 189,016	$ 11,868	$ 258,527	$ 133,081	$1,274,575
Gogebic	316,180	12,641	542,195	613,895	100,468	130,074	1,872,303
Grand Traverse	760,221	2,327,439	1,977,032	567,487	336,290	258,147	6,486,240
Gratiot	501,214	38,215	511,464	1,257,819	308,805	253,897	3,052,987
Hillsdale	603,344	26,305	517,786	991,790	239,149	219,885	2,865,174
Houghton	706,417	40,738	1,410,548	933,949	275,865	187,610	3,797,528
Huron	433,274	11,342	525,095	598,524	181,376	186,139	2,083,752
Ingham	4,948,334	470,351	2,742,885	1,812,712	2,866,946	1,210,818	16,787,789
Ionia	888,226	33,288	1,268,351	16,655	493,572	292,818	3,349,135
Iosco	401,490	37,011	242,307	226,240	176,550	104,761	1,350,027
Iron	318,591	43,426	264,251	1,292,449	90,561	114,949	2,221,579
Isabella	918,223	18,263	5,598,891	8,086,356	495,541	239,932	15,693,822
Jackson	3,360,488	368,902	1,326,997	2,611,795	1,552,153	837,701	11,231,555
Kalamazoo	3,304,870	3,135,142	4,640,321	1,796,270	1,500,331	840,579	17,153,105
Kalkaska	270,941	4,290	39,889	60,154	119,184	63,710	650,913
Kent	6,381,461	870,825	5,979,994	4,934,042	3,314,521	1,832,424	26,577,587
Keweenaw	32,418	2,384	---	---	15,979	12,425	75,902
Lake	250,139	1,549	9,755	5,500	106,875	95,434	594,540
Lapeer	932,792	58,218	1,884,392	17,923,294	509,199	282,461	21,875,592
Leelanau	118,251	2,710	159,531	388,869	49,538	33,037	798,409
Lenawee	1,358,961	216,768	1,010,418	956,657	522,652	299,119	4,828,773
Livingston	714,480	78,140	2,263,505	5,620,431	398,213	237,068	9,674,537
Luce	243,569	259,708	2,869	5,928,007	88,822	59,624	6,637,511
Mackinac	173,786	- 2,908	102,960	151,719	85,027	55,303	628,005
Macomb	7,052,535	658,858	8,195,955	6,850,029	4,655,592	2,113,068	32,698,668

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY: FISCAL YEAR 1978 (cont.)

County	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total [a]
Sanilac	$ 751,103	$ 31,615	$ 277,797	$ 504,487	$ 294,121	$ 161,237	$ 2,239,612
Schoolcraft	161,411	---	118,403	433,526	96,724	72,475	955,495
Shiawassee	857,487	40,263	484,520	646,842	457,559	245,412	3,119,765
Tuscola	797,432	48,938	2,497,038	8,147,589	334,128	225,301	12,333,016
Van Buren	1,913,570	84,022	1,317,581	705,827	872,949	540,420	6,487,954
Washtenaw	3,769,121	3,024,212	2,581,382	1,080,254	1,728,773	878,033	14,726,062
Wayne	149,429,612	19,068,670	39,750,946	57,676,115	55,157,282	21,794,021	390,128,411
Wexford	567,596	24,880	530,038	233,686	227,820	194,930	1,976,335
TOTAL	260,138,756	42,485,300	146,305,193	188,726,999	133,850,463	53,479,511	900,528,057

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal Year 1978 (Lansing: 1979), Table 10.

a. See Table VII-14 for a complete listing of items included in the total.

TABLE VII-26. RANKING OF MICHIGAN COUNTIES ACCORDING TO THE PERCENTAGE OF TOTAL POPULATION IN FAMILIES OR HOUSEHOLDS THAT RECEIVED GENERAL ASSISTANCE OR AID TO FAMILIES WITH DEPENDENT CHILDREN FROM THE STATE OF MICHIGAN: 1978

County	1978		County	1978	
	Number	Percentage		Number	Percentage
Lake	926	13.2	Isabella	2,865	5.5
Wayne	293,606	12.3	Alcona	499	5.4
Van Buren	6,905	11.1	Gratiot	2,120	5.4
Saginaw	22,521	9.9	Oscoda	359	5.4
Muskegon	15,116	9.5	Luce	387	5.3
Arenac	1,247	9.2	Midland	3,690	5.3
Berrien	15,245	9.1	Mackinac	581	5.2
Calhoun	12,376	8.8	Shiawassee	3,626	5.2
Genesee	39,539	8.8	Benzie	542	5.1
Clare	2,022	8.5	Barry	2,136	5.0
Oceana	1,746	8.3	Mecosta	1,748	5.0
Ingham	21,698	8.0	Tuscola	2,780	5.0
Gladwin	1,399	7.6	Branch	1,893	4.9
Ogemaw	1,275	7.6	Hillsdale	2,014	4.9
Newaygo	2,470	7.4	Lenawee	4,283	4.9
Crawford	667	7.3	Washtenaw	12,316	4.8
St. Clair	9,720	7.3	Delta	1,893	4.7
Baraga	597	6.9	Mason	1,138	4.6
Kalkaska	775	6.8	Iosco	1,378	4.5
Osceola	1,229	6.8	Keweenaw	98	4.5
Wexford	1,527	6.7	Lapeer	2,863	4.3
Houghton	2,457	6.6	Monroe	5,722	4.3
Missaukee	610	6.3	Iron	620	4.2
Gogebic	1,207	6.2	Manistee	945	4.2
Alger	612	6.1	Marquette	3,021	4.1
Cass	2,751	6.1	Menominee	1,089	4.1
Chippewa	1,847	6.1	Antrim	614	3.8
Kalamazoo	12,659	6.1	Charlevoix	722	3.7
Roscommon	983	6.1	Emmet	806	3.7
Jackson	9,060	6.0	Grand Traverse	1,728	3.6
Cheboygan	1,178	5.9	Presque Isle	502	3.6
St. Joseph	3,048	5.9	Huron	1,270	3.5
Kent	25,321	5.8	Otsego	474	3.3
Montcalm	2,636	5.8	Clinton	1,687	3.1
Montmorency	445	5.8	Eaton	2,563	3.1
Ontonagon	622	5.8	Macomb	21,576	3.1
Sanilac	2,335	5.8	Livingston	2,812	2.0
Schoolcraft	544	5.8	Dickinson	741	2.8
Allegan	4,195	5.7	Ottawa	3,416	2.3
Alpena	1,912	5.7	Leelanau	265	2.0
Ionia	2,850	5.7	Oakland	7,562	0.7
Bay	6,850	5.6			

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.
NOTE: Figures represent averages of twelve monthly recipient tallies as percentages of the 1 July population.

TABLE VII-27. TRANSFER PAYMENTS PER CAPITA AND RANKING OF MICHIGAN COUNTIES ACCORDING TO TRANSFER PAYMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	Percentage	Per capita	County	Percentage	Per capita
Lake	34.7	1,501	Huron	17.4	1,030
Roscommon	33.5	1,571	Sanilac	17.2	998
Oscoda	32.9	1,317	Otsego	17.0	983
Ontonagon	31.8	1,477	Ionia	16.7	908
Keweenaw	31.6	1,332	Leelanau	15.6	954
Alcona	31.1	1,487	Muskegon	15.6	969
Montmorency	30.6	1,500	St. Clair	15.1	971
Gogebic	29.1	1,558	Grand Traverse	15.0	1,051
Clare	27.9	1,339	Hillsdale	14.8	895
Ogemaw	27.1	1,284	Branch	14.5	955
Iron	27.0	1,437	St. Joseph	14.3	957
Houghton	25.7	1,251	Gratiot	14.2	904
Baraga	25.5	1,294	Allegan	14.0	802
Schoolcraft	25.2	1,259	Berrien	14.0	950
Alger	25.0	1,081	Barry	13.9	786
Osceola	24.8	1,119	Calhoun	13.9	1,036
Cheboygan	24.6	1,252	Marquette	13.8	836
Missaukee	24.2	1,064	Tuscola	13.5	865
Gladwin	24.1	1,170	Wayne	13.2	1,103
Presque Isle	23.4	1,107	Shiawassee	13.1	868
Luce	23.2	1,355	Cass	12.9	864
Mackinaw	22.7	1,188	Lenawee	12.9	869
Crawford	21.8	1,079	Isabella	12.8	721
Benzie	21.7	1,213	Ingham	12.7	957
Mecosta	21.7	886	Jackson	12.6	860
Chippewa	21.7	1,011	Kent	12.4	876
Arenac	21.5	1,209	Bay	12.0	839
Wexford	21.3	1,226	Lapeer	11.9	758
Delta	21.1	1,141	Eaton	11.5	804
Antrim	20.8	1,132	Kalamazoo	11.2	832
Manistee	20.7	1,174	Saginaw	11.1	844
Oceana	20.2	1,011	Genesee	10.7	887
Iosco	20.0	1,000	Monroe	10.6	727
Newaygo	19.8	991	Ottawa	10.2	679
Kalkaska	19.4	866	Washtenaw	9.9	801
Van Buren	19.0	1,118	Clinton	9.4	603
Montcalm	18.8	1,037	Livingston	8.7	580
Charlevoix	18.6	1,061	Midland	8.4	666
Mason	18.6	980	Macomb	8.0	697
Alpena	18.3	1,051	Oakland	7.9	774
Menominee	18.3	945			
Emmet	18.0	1,147	Michigan	12.2	930
Dickinson	17.6	1,154	United States	13.7	965

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY: FISCAL YEAR 1978 (cont.)

County	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total [a]
Manistee	$ 267,874	$ ---	$ 374,176	$ 798,142	$ 115,688	$ 90,167	$1,787,258
Marquette	699,064	57,508	821,925	949,604	410,697	229,614	3,461,033
Mason	252,759	13,228	979,592	104,116	126,349	119,003	1,753,162
Mecosta	499,596	35,890	761,786	15,238	253,913	197,201	2,020,247
Menominee	306,570	2,763	113,466	594,538	124,896	112,107	1,313,195
Midland	926,929	77,474	1,327,428	43,746	502,045	295,014	3,624,887
Missaukee	242,030	1,236	105,476	57,462	100,263	70,303	640,966
Monroe	1,833,917	91,207	2,225,985	121,317	844,728	566,859	7,476,026
Montcalm	797,934	73,747	584,688	439,194	464,370	291,241	2,963,375
Montmorency	135,953	9,356	6,666	6,837	72,770	48,733	342,094
Muskegon	4,034,052	508,188	2,406,892	8,946,389	2,241,038	1,210,501	21,263,239
Newaygo	659,861	134,427	1,205,616	312,359	304,087	231,792	3,232,461
Oakland	10,368,656	6,761,644	8,422,468	6,673,815	6,478,148	3,171,988	46,927,782
Oceana	379,727	9,449	470,892	197,779	219,841	130,869	1,609,177
Ogemaw	382,314	30,787	1,252,115	450,972	246,096	266,495	2,804,035
Ontonagon	220,218	28,338	279,509	419,549	85,022	78,881	1,162,157
Osceola	356,849	20,654	242,606	165,372	180,482	94,516	1,198,684
Oscoda	117,457	4,443	3,004	137,882	64,251	55,715	440,738
Otsego	177,762	37,220	3,070,906	510,407	119,408	53,475	4,068,930
Ottawa	889,981	61,839	2,797,560	1,316,398	478,362	463,211	6,411,467
Presque Isle	194,836	68,932	285,864	80,077	84,961	71,593	840,972
Roscommon	344,857	16,404	10,425	274,532	161,380	122,999	1,074,844
Saginaw	5,497,140	423,408	2,453,309	2,810,916	2,849,833	1,250,327	17,476,602
St. Clair	2,323,642	280,150	1,578,725	617,435	1,322,059	545,951	7,744,888
St. Joseph	826,360	18,712	865,901	329,722	339,328	259,052	2,990,018

TABLE VII-28. MICHIGAN COUNTIES RANKED ACCORDING TO SOCIAL SECURITY BENEFITS (OLD AGE, SURVIVORS, AND DISABILITY INSURANCE) AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1977

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Lake	5,646	18.4	Delta	17,575	8.1
Roscommon	13,476	18.3	Van Buren	29,658	8.1
Keweenaw	1,924	17.5	Chippewa	13,689	8.0
Montmorency	6,010	16.8	Ionia	19,076	7.1
Oscoda	4,221	16.5	Muskegon	70,017	7.1
Alcona	6,935	16.3	St. Joseph	23,998	7.1
Iron	10,697	13.8	Hillsdale	17,273	7.0
Ogemaw	9,516	13.5	Leelanau	5,612	7.0
Gogebic	14,633	13.4	Branch	16,960	6.9
Clare	14,198	13.0	Grand Traverse	22,608	6.9
Gladwin	10,377	12.4	Allegan	27,594	6.6
Presque Isle	7,940	12.0	Berrien	74,390	6.5
Osceola	9,740	11.7	Barry	15,311	6.4
Baraga	4,901	11.5	Gratiot	16,238	6.4
Houghton	20,770	11.5	St. Clair	54,399	6.4
Schoolcraft	5,066	11.4	Lenawee	35,376	6.1
Alger	4,811	11.3	Marquette	25,882	6.1
Ontonagon	5,770	11.2	Tuscola	21,180	6.1
Missaukee	4,448	10.8	Jackson	58,923	5.8
Crawford	4,570	10.3	Cass	17,003	5.7
Arenac	7,801	10.2	Bay	46,519	5.6
Manistee	12,595	10.2	Calhoun	59,000	5.6
Mackinac	5,731	10.1	Kent	169,841	5.6
Antrim	8,643	10.0	Isabella	13,233	5.3
Benzie	5,762	9.8	Shiawassee	23,742	5.1
Oceana	10,272	9.8	Wayne	1,021,042	5.1
Cheboygan	9,942	9.6	Ottawa	48,594	5.0
Menominee	12,833	9.5	Saginaw	84,310	4.9
Iosco	14,267	9.3	Kalamazoo	71,533	4.7
Dickinson	15,074	9.1	Lapeer	19,446	4.7
Newaygo	14,766	9.1	Monroe	41,387	4.6
Wexford	11,780	9.1	Genesee	163,854	4.4
Luce	3,805	9.0	Ingham	87,807	4.3
Kalkaska	4,533	8.8	Livingston	23,462	4.1
Mason	11,675	8.8	Clinton	13,560	3.9
Charlevoix	9,662	8.7	Eaton	21,660	3.9
Huron	18,578	8.6	Macomb	213,015	3.8
Montcalm	21,775	8.6	Midland	19,982	3.6
Mecosta	11,989	8.5	Oakland	345,553	3.6
Sanilac	18,849	8.4	Washtenaw	65,158	3.2
Emmet	11,114	8.2			
Otsego	6,831	8.2	Michigan	3,565,068	5.1
Alpena	15,686	8.1	U.S.	83,326,000	5.5

SOURCE: Developed from Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-29. MICHIGAN COUNTIES RANKED ACCORDING TO PUBLIC ASSISTANCE (WELFARE) BENEFITS AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1977

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Lake	1,625	5.3	Delta	3,719	1.7
Oscoda	781	3.1	Gogebic	1,891	1.7
Van Buren	11,262	3.1	Iron	1,332	1.7
Clare	3,176	2.9	Isabella	4,467	1.7
Alger	1,165	2.8	Mason	2,247	1.7
Oceana	2,899	2.8	Antrim	1,406	1.6
Missaukee	1,127	2.7	Barry	3,714	1.6
Ogemaw	1,920	2.7	Cass	4,716	1.6
Wayne	543,758	2.7	Hillsdale	3,899	1.6
Arenac	2,008	2.6	St. Joseph	5,457	1.6
Roscommon	1,907	2.6	Huron	3,150	1.5
Schoolcraft	1,168	2.6	Lenawee	8,409	1.5
Baraga	1,076	2.5	Manistee	1,820	1.5
Gladwin	2,077	2.5	Tuscola	5,042	1.5
Crawford	1,054	2.4	Bay	11,445	1.4
Houghton	4,365	2.4	Gratiot	3,682	1.4
Newaygo	3,807	2.4	Iosco	2,185	1.4
Osceola	2,026	2.4	Jackson	14,356	1.4
Kalkaska	1,255	2.4	Kent	42,488	1.4
Alcona	970	2.3	Menominee	1,930	1.4
Muskegon	23,399	2.3	Otsego	1,168	1.4
Ontonagon	1,178	2.3	Shiawassee	6,511	1.4
Berrien	25,177	2.2	Branch	3,192	1.3
Cheboygan	2,352	2.2	Charlevoix	1,401	1.3
Keweenaw	242	2.2	Kalamazoo	20,359	1.3
Luce	925	2.2	Lapeer	5,397	1.3
Montmorency	783	2.2	Emmet	1,573	1.2
Chippewa	3,530	2.1	Marquette	4,948	1.2
Mackinac	1,165	2.1	Washtenaw	23,357	1.2
Wexford	2,684	2.1	Grand Traverse	3,615	1.1
Benzie	1,191	2.0	Midland	5,947	1.1
Mecosta	2,834	2.0	Monroe	9,721	1.1
Allegan	7,922	1.9	Dickinson	1,551	.9
Calhoun	19,865	1.9	Clinton	2,738	.8
Genesee	69,338	1.9	Eaton	4,512	.8
Ionia	5,066	1.9	Livingston	4,781	.8
Montcalm	4,907	1.9	Leelanau	548	.7
Presque Isle	1,261	1.9	Macomb	39,138	.7
Saginaw	33,505	1.9	Oakland	64,146	.7
St. Clair	16,001	1.9	Ottawa	5,913	.6
Sanilac	4,358	1.9			
Ingham	36,145	1.8	Michigan	1,194,401	1.7
Alpena	3,276	1.7	U.S.	23,839,000	1.6

SOURCE: Developed from Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-30. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE UNEMPLOYED PARENT AID TO DEPENDENT CHILDREN PROGRAM, ANNUAL AVERAGES: 1977-1978

County	Number 1977	Number 1978	Percentage change	County	Number 1977	Number 1978	Percentage change
Keweenaw	16	18	+ 12.5	Luce	108	87	- 19.4
Arenac	286	316	+ 10.5	Tuscola	684	548	- 19.9
Houghton	690	755	+ 9.4	Ionia	663	530	- 20.1
Gogebic	313	334	+ 6.7	Bay	1,425	1,133	- 20.5
Isabella	869	919	+ 5.8	Lapeer	642	504	- 21.5
Delta	399	420	+ 5.3	Oscoda	110	86	- 21.8
Lake	128	131	+ 2.3	Monroe	1,014	790	- 22.1
Iron	145	147	+ 1.4	Cheboygan	297	229	- 22.9
Emmet	105	106	+ .9	Lenawee	1,185	911	- 23.1
Gladwin	432	434	+ .5	Muskegon	2,153	1,651	- 23.3
St. Clair	1,930	1,894	- 1.9	Macomb	2,188	1,651	- 24.5
Eaton	426	415	- 2.6	Livingston	579	436	- 24.7
Gratiot	591	572	- 3.2	Shiawassee	993	747	- 24.8
Ogemaw	349	336	- 3.7	Montcalm	655	490	- 25.2
Chippewa	340	325	- 4.4	Oakland	2,889	2,158	- 25.3
Alpena	489	463	- 5.3	Schoolcraft	148	110	- 25.7
Van Buren	1,542	1,441	- 6.5	Menominee	275	200	- 27.3
Wayne	15,073	13,959	- 7.4	Allegan	1,013	728	- 28.1
Alcona	171	155	- 9.4	Ottawa	371	266	- 28.3
Charlevoix	101	91	- 9.9	Kalkaska	235	168	- 28.5
Oceana	508	457	10.0	Berrien	752	532	- 29.3
Ontonagon	247	219	- 11.3	Presque Isle	157	110	- 29.9
Gr. Traverse	218	193	- 11.5	Otsego	76	53	- 30.3
Mecosta	443	391	- 11.7	Cass	507	353	- 30.4
Midland	1,140	1,007	- 11.7	Iosco	286	199	- 30.4
Kalamazoo	1,597	1,406	- 12.0	Huron	400	278	- 30.5
Saginaw	2,610	2,296	- 12.0	Newaygo	702	488	- 30.5
Branch	245	214	- 12.7	Baraga	157	109	- 30.6
Calhoun	2,031	1,749	- 13.9	Kent	2,025	1,378	- 32.0
Wexford	346	298	- 13.9	Jackson	1,188	802	- 32.5
Benzie	154	131	- 14.9	Manistee	129	87	- 32.6
Missaukee	181	154	- 14.9	Alger	240	161	- 32.9
Osceola	391	331	- 15.3	Hillsdale	451	296	- 34.4
Clare	759	642	- 15.4	Dickinson	92	59	- 35.9
Ingham	3,577	3,015	- 15.7	Crawford	157	99	- 36.9
Sanilac	663	554	- 16.4	Leelanau	37	22	- 40.5
St. Joseph	608	507	- 16.6	Barry	519	293	- 43.5
Genesee	4,452	3,699	- 16.9	Marquette	1,065	546	- 48.7
Clinton	344	282	- 18.0	Roscommon	294	147	- 49.3
Washtenaw	1,200	978	- 18.5	Mason	199	100	- 49.7
Montmorency	129	105	- 18.6	Antrim	164	81	- 50.6
Mackinac	213	173	- 18.8	Michigan	73,700	61,662	- 16.3

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.

TABLE VII-31. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE REGULAR AID TO DEPENDENT CHILDREN PROGRAM, ANNUAL AVERAGES: 1977-1978

County	Number 1977	Number 1978	Percentage change	County	Number 1977	Number 1978	Percentage change
Ogemaw	772	848	+ 9.8	Kalamazoo	10,607	10,605	0
Kalkaska	511	560	+ 9.6	Keweenaw	62	62	0
Montmorency	272	296	+ 8.8	Lapeer	2,131	2,131	0
Leelanau	222	241	+ 8.6	Dickinson	664	663	- .2
Missaukee	390	423	+ 8.5	Delta	1,350	1,343	- .5
Roscommon	694	753	+ 8.5	Saginaw	17,868	17,777	- .5
Gladwin	809	875	+ 8.2	Ionia	2,106	2,094	- .6
Charlevoix	556	594	+ 6.8	St. Clair	7,338	7,286	- .7
Livingston	2,146	2,291	+ 6.8	Clare	1,277	1,268	- .9
Newaygo	1,687	1,799	+ 6.6	Shiawassee	2,797	2,767	- 1.1
Gogebic	711	752	+ 5.8	Berrien	14,511	14,332	- 1.2
Branch	1,435	1,509	+ 5.2	Montcalm	2,017	1,993	- 1.2
Gr. Traverse	1,423	1,493	+ 4.9	Jackson	7,792	7,699	- 1.2
Iosco	1,018	1,067	+ 4.8	Benzie	385	380	- 1.3
Huron	890	927	+ 4.2	Ingham	16,685	16,465	- 1.3
Menominee	782	815	+ 4.2	Osceola	813	798	- 1.8
Hillsdale	1,568	1,629	+ 3.9	Antrim	529	519	- 1.9
Baraga	339	352	+ 3.8	Wayne	255,013	250,206	- 1.9
Gratiot	1,428	1,482	+ 3.8	Chippewa	1,436	1,400	- 2.5
Isabella	1,777	1,841	+ 3.6	Ottawa	3,082	3,001	- 2.6
Tuscola	2,048	2,115	+ 3.3	Van Buren	5,123	4,974	- 2.9
Mason	945	975	+ 3.2	Eaton	2,024	1,962	- 3.1
Mecosta	1,248	1,288	+ 3.2	Macomb	19,578	18,976	- 3.1
Houghton	1,231	1,269	+ 3.1	Monroe	4,895	4,726	- 3.5
Marquette	2,251	2,318	+ 3.0	Cass	2,428	2,330	- 4.0
Midland	2,386	2,451	+ 2.7	St. Joseph	2,458	2,351	- 4.4
Clinton	1,300	1,329	+ 2.2	Kent	23,262	22,210	- 4.5
Aremac	791	808	+ 2.1	Genesee	35,023	33,369	- 4.7
Sanilac	1,602	1,632	+ 1.9	Iron	464	442	- 4.7
Alpena	1,314	1,338	+ 1.8	Washtenaw	10,584	10,054	- 5.0
Otsego	406	412	+ 1.5	Lenawee	2,364	3,191	- 5.1
Mackinac	387	392	+ 1.3	Oakland	30,378	28,811	- 5.2
Schoolcraft	346	353	+ 1.3	Allegan	3,464	3,261	- 5.9
Alger	392	396	+ 1.0	Cheboygan	447	887	- 6.3
Bay	5,258	5,300	+ .8	Presque Isle	402	376	- 6.5
Crawford	540	544	+ .7	Manistee	846	783	- 7.4
Lake	679	683	+ .6	Wexford	1,258	1,157	- 8.0
Emmet	661	664	+ .5	Ontonagon	391	358	- 8.4
Muskegon	12,598	12,655	+ .5	Oscoda	279	255	- 8.6
Oceana	1,172	1,176	+ .3	Alcona	365	326	-10.7
Calhoun	9,621	9,644	+ .2	Luce	316	274	-13.3
Barry	1,720	1,722	+ .1	Michigan	564,671	553,777	- 1.9

SOURCE: Michigan Department of Social Services, special release.

TABLE VII-32. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE GENERAL ASSISTANCE PROGRAM, ANNUAL AVERAGES: 1977-1978

County	Number 1977	Number 1978	Percentage change	County	Number 1977	Number 1978	Percentage change
Presque Isle	6	16	166.7	Oceana	110	113	2.7
Montmorency	22	44	100.0	Bay	408	417	2.2
Livingston	47	85	80.9	Sanilac	148	149	.7
Berrien	234	381	62.8	Barry	121	121	.0
Tuscola	76	117	53.9	Leelanau	2	2	.0
Van Buren	325	490	50.8	Ionia	232	226	- 2.6
Eaton	124	186	50.0	Mecosta	71	69	- 2.8
Keweenaw	12	18	50.0	Newaygo	189	183	- 3.2
Osceola	69	100	44.9	Monroe	213	206	- 3.3
Lake	81	112	38.3	Iosco	116	112	- 3.4
Gogebic	89	121	36.0	Alger	57	55	- 3.5
Luce	20	26	30.0	Macomb	990	949	- 4.1
Ogemaw	72	91	26.4	Gratiot	69	66	- 4.3
Kent	1,416	1,733	22.4	Marquette	166	157	- 5.4
Cass	56	68	21.4	Huron	69	65	- 5.8
Charlevoix	31	37	19.4	Jackson	594	559	- 5.9
Menominee	62	74	19.4	St. Clair	582	540	- 7.2
Delta	109	130	19.3	Ottawa	161	149	- 7.5
Manistee	63	75	19.0	Crawford	26	24	- 7.7
Saginaw	2,092	2,448	17.0	Hillsdale	98	89	- 9.2
Antrim	12	14	16.7	Lapeer	251	228	- 9.2
St. Joseph	163	190	16.6	Dickinson	21	19	- 9.5
Alpena	96	111	15.6	Roscommon	93	83	-10.8
Benzie	27	31	14.8	Chippewa	137	122	-10.9
Ingham	1,932	2,218	14.8	Schoolcraft	91	81	-11.0
Wexford	63	72	14.3	Ontonagon	51	45	-11.8
Isabella	92	105	14.1	Genesee	2,820	2,471	-12.4
Branch	151	170	12.6	Missaukee	38	33	-13.2
Alcona	16	18	12.5	Shiawassee	129	112	-13.2
Otsego	8	9	12.5	Muskegon	936	810	-13.5
Kalkaska	42	47	11.9	Wayne	34,478	29,441	-14.6
Calhoun	880	983	11.7	Kalamazoo	761	648	-14.8
Grand Traverse	38	42	10.5	Montcalm	180	153	-15.0
Arenac	113	123	8.8	Clare	138	112	-18.8
Cheboygan	57	62	8.8	Clinton	95	76	-20.0
Gladwin	83	90	8.4	Oakland	3,161	2,523	-20.2
Houghton	404	433	7.2	Oscoda	23	18	-21.7
Baraga	127	136	7.1	Lenawee	235	181	-23.0
Mackinac	15	16	6.7	Mason	78	63	-32.1
Emmet	34	36	5.9	Allegan	57	206	-37.0
Washtenaw	1,243	1,284	3.3	Iron	55	31	-43.6
Midland	225	232	3.1	Michigan	58,721	54,566	- 7.1

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.

TABLE VII-33. RESULTS OF UNITED WAY (COMMUNITY CHEST) CAMPAIGNS IN MICHIGAN, BY CITY OR AREA: 1976-1977 - 1978-1979

City or county	1976-1977	1977-1978	1978-1979[a]
	Executive directed United Ways		
Adrian	$ 294,013	$ 335,252	$ 356,639
Alma	88,301	108,558	118,636
Alpena	181,589	193,750	187,300
Ann Arbor	2,512,839	1,823,197	3,140,256
Battle Creek	1,187,282	1,216,403	1,308,001
Bay City	690,712	765,913	831,275
Detroit	37,819,405	42,673,002	46,173,798
Flint	4,318,169	5,571,438	6,158,365
Grand Rapids	3,210,467	3,594,038	3,921,809
Jackson	1,028,259	1,142,646	1,226,609
Kalamazoo	1,758,604	2,003,906	2,262,319
Lansing	2,510,056	1,939,981	3,602,525
Marquette	255,194	271,941	295,839
Midland	921,084	1,167,644	1,208,753
Monroe	460,000	511,700	551,500
Muskegon	1,300,000	1,377,120	1,480,000
Niles	181,614	201,573	213,025
Owosso	217,145	238,245	262,722
Pontiac	1,692,328	1,927,168	2,267,526
Port Huron	653,127	692,000	710,257
Saginaw	2,530,478	2,752,422	3,007,201
St. Joseph/Benton Harbor	775,432	832,000	910,100
Traverse City	290,103	328,000	400,000
TOTAL	64,876,201	73,667,897	80,594,455
	Volunteer directed United Ways		
Allegan county			
Allegan	25,012	24,000	29,700
Otsego	19,950	25,000	27,000
Plainwell	25,950	26,042	29,000
Barry county			
Hastings	90,524	97,032	104,244
Nashville	1,766	1,856	1,572
Southwest Barry	3,000	n.a.	n.a.
Woodland	1,000	1,367	1,000
Benzie county			
Beulah	22,877	24,000	24,650
Berrien county			
Buchanan	50,090	51,381	52,370

TABLE VII-33. RESULTS OF UNITED WAY (COMMUNITY CHEST) CAMPAIGNS IN MICHIGAN, BY CITY OR AREA: 1976-1977 - 1978-1979 (cont.)

City or county	1976-1977	1977-1978	1978-1979[a]
	Volunteer directed United Ways (cont.)		
Branch county			
Branch	$ 55,000	$ 67,625	$ 72,240
Bronson	8,924	8,522	11,085
Calhoun county			
Albion	77,000	86,737	90,000
Marshall	58,607	61,027	70,744
Charlevoix county			
Boyne Area	16,000	15,300	19,400
Charlevoix	12,143	11,000	8,640
East Jordan	10,200	14,500	15,500
Cheboygan county	42,614	49,700	60,134
Chippewa county	79,200	67,000	70,000
Delta county	67,000	84,000	89,500
Dickinson county	60,154	65,000	67,850
Eaton county			
Charlotte	38,813	65,714	60,028
Eaton Rapids	14,000	10,200	12,500
Emmet county			
(Incl. Harbor Springs)	42,275	43,000	47,000
Gogebic county			
Ironwood	18,500	18,623	18,908
Hillsdale county			
Hillsdale	40,625	40,590	52,000
Litchfield	5,584	6,144	6,857
Houghton county			
Copper Country	35,100	41,304	40,851
Huron county			
Bad Axe	n.c.	4,670	8,157
Caseville	3,372	3,280	4,238
Elkton	4,142	4,198	4,184
Harbor Beach	6,000	8,200	8,300
Pigeon-Winsor-McKinley	1,097	1,800	1,910
Ionia county			
Ionia	91,200	94,716	100,089
Lake Odessa	7,224	6,000	8,559
Portland	14,700	17,000	18,054
Iosco county			
Oscoda-AuSable	11,638	15,000	16,100
Wurtsmith AFB	19,851	28,927	33,143
Tawas-Whittemore-Hale	16,082	20,015	19,888

TABLE VII-33. RESULTS OF UNITED WAY (COMMUNITY CHEST) CAMPAIGNS IN MICHIGAN, BY CITY OR AREA: 1976-1977 - 1978-1979 (cont.)

City or county	1976-1977	1977-1978	1978-1979[a]
	Volunteer directed United Ways (cont.)		
Iron county	$ 9,680	$ 7,312	$ 3,528
Isabella county	91,500	102,615	112,768
Lapeer county			
Almont	2,437	1,558	3,900
Dryden	100	184	250
Imlay City	14,500	12,000	13,500
Lapeer	48,086	41,604	50,500
Marathon Twp.	1,092	2,457	2,500
N. Branch	1,344	1,719	2,100
Lenawee county			
Britton-Macon	3,364	3,301	3,301
Clinton	9,000	8,800	13,000
Tecumseh	79,950	97,592	88,031
Livingston county	125,044	174,028	195,000
Manistee county	91,725	101,800	99,739
Marquette county			
Republic	8,890	7,903	8,727
Mason county	66,215	86,500	85,994
Menominee county	41,268	43,500	47,831
Missaukee county	7,669	6,200	4,375
Montcalm county	72,265	76,421	82,452
Newaygo county	63,652	57,775	55,755
Oakland twnshp.	15,100	19,000	15,500
Otsego county			
Gaylord	21,392	26,544	28,620
Ottawa county			
Holland	287,875	309,500	321,433
Tri-Cities	203,293	219,113	235,803
Zeeland	46,920	53,400	59,044
Coopersville	9,000	--	7,675
Presque Isle county	13,666	18,500	16,600
St. Joseph county			
Sturgis	73,502	79,276	77,786
Sanilac county	24,561	35,719	37,000
Tuscola county			
Akron-Fairgrove	1,415	1,400	1,350
Caro	n.c.	8,400	n.c.
Elkland-Novesta	10,604	11,482	13,764
Vassar	10,000	11,215	12,000

TABLE VII-33. RESULTS OF UNITED WAY (COMMUNITY CHEST) CAMPAIGNS IN MICHIGAN, BY CITY OR AREA: 1976-1977 - 1978-1979 (cont.)

City or county	1976-1977	1977-1978	1978-1979[a]
	Volunteer directed United Ways (cont.)		
Van Buren county			
Bangor	$ 8,373	$ 7,800	$ 8,100
Covert	1,500	1,620	1,800
Hartford	4,000	7,000	5,400
Mattawan	n.a.	n.a.	n.a.
Paw Paw	7,524	10,000	10,000
South Haven	32,006	34,362	51,129
Washtenaw county			
Chelsea	27,253	37,609	38,500
Dexter	31,054	30,957	33,500
Manchester	23,119	23,343	24,920
Saline	64,105	80,703	106,000
Wayne county			
Plymouth	244,835	252,516	293,375
Wexford county			
Cadillac	82,889	92,482	100,101
TOTAL	3,078,981	3,415,680	3,605,306
GRAND TOTAL[b]	67,955,182	77,083,577	84,199,761

SOURCE: United Way of Michigan, special release.

a. Not final

b. Executive plus volunteer directed.

n.a.: not available.

VIII. LAW ENFORCEMENT AND THE COURTS

The Michigan Department of State Police compiles data on criminal offenses, arrests, and stolen property within the state of Michigan. The Department of State Police publishes these data in the monthly Uniform Crime Report Bulletin, the semi-annual crime summary, and the annual Uniform Crime Report, which is usually published during the spring. From 1959 through 1970, the information now contained in the Uniform Crime Report was found in the Department of State Police's Michigan Law Enforcement Officials Report on Crime. Michigan began collecting such data in 1959. National data on crime and comparisons with other states are found in the Federal Bureau of Investigation's Uniform Crime Reports for the United States. It should be noted that some local law enforcement agencies are sometimes slow in reporting, and corrections are made when the information is available; thus in obtaining data for previous years, the most recent edition of the Uniform Crime Report should be utilized. The Uniform Crime Report was becoming increasingly comprehensive in scope until 1976, when budget restrictions forced a severe reduction in the amount of data made available.

The Michigan Department of State Police collects its data from State Police units in the field, county sheriff departments, and other police units of local governments. Its statistics are more comprehensive than those published in the Uniform Crime Report, and especially more so now that less is being published in that document. The tables which follow include considerable information not included in this year's Uniform Crime Report. For additional information the Uniform Reporting Section of the Michigan Department of State Police should be contacted.

Statistics on all types of fires are kept by the Fire Marshal Division of the Michigan Department of State Police and are published in their Michigan Fire Incident Reporting System.

The Federal Bureau of Investigation divides crimes into two categories: Index Offenses and Nonindex Offenses. Index Offenses are those referred to when authorities say the crime index has increased. The crime rate is the total index crime per 100,000 population. Crimes in the index are usually more serious and/or are based on data with a high degree of interpreting and reporting reliability. Index Offenses are murder and nonnegligent manslaughter; rape; robbery in the form of stealing from a person; aggravated assault; burglary, which is any unlawful entry to commit a felony or theft; larceny, which is theft excluding motor vehicle theft, which is listed separately, does not include con games, embezzlement, or fraud; and motor vehicle theft (the term has been used interchangeably with auto theft), which includes all cases in which a motor vehicle is stolen or driven away. All other offenses are classified under Nonindex Offenses. Sex offenses do not include rape or prostitution and commercialized vice, which are listed separately. Offenses against family and children include nonsupport, desertion, neglect, and abuse. Liquor laws include all violations of the liquor laws except driving under the influence and drunkenness, which are listed separately.

Offenses are crime events, while arrests refer to number of individual persons taken into custody and formally charged with violation of law. An offense is cleared by arrest when at least one person is arrested, charged, and given to the court for prosecution. Data concerning offenses do include attempts at that particular crime whether successfully executed or not. It might be noted that perhaps one-half of all crime goes unreported.

The Court System

Because of the numerous names, the court system seems confusing. There are two court systems: a federal and a Michigan system. The federal system will be considered first. There is a Federal District Court in Michigan; it is divided into the Eastern District, with the main court in Detroit and branches in Flint and Bay City, and the Western District, with the main court in Grand Rapids and a branch in Marquette. These courts not only handle criminal and civil cases, but also have bankruptcy courts which report separately from the criminal and civil courts. An appeal from a Federal District Court in Michigan goes to the 6th Circuit Court of Appeals in Cincinnati, Ohio. From there, a case would be appealed to the U.S. Supreme Court in Washington, D.C. There currently is no good source of data on the federal courts in Michigan as they issue no annual report. They must make monthly reports. Separate reports are issued for criminal, civil, and bankruptcy proceedings.

The Michigan Constitution of 1963 provided for a uniform state court system consisting of courts and several other judicial organizations with specialized functions. The courts are responsible not only for the formal processing of fully litigated criminal prosecutions and civil proceedings, but also for the administrative processing of criminal cases. Let us consider each part of the system, beginning with the Michigan Supreme Court.

Supreme Court

The Michigan Supreme Court is the highest appellate court in the state judicial system and is responsible for exercising supervision and control over all other courts in the state system. This supervision includes promulgation of court rules and procedures. The seven Supreme Court judges are chosen in nonpartisan elections for eight-year terms. No more than two terms of office shall expire at the same time. The chief justice is selected by the court justices from their number. The court appoints an administrator of the courts and such assistants as necessary to perform the requisite duties and aid in the administration of the courts. The Supreme Court is located in Lansing.

Court of Appeals

A decision of the Court of Appeals is final, except when the Supreme Court grants review. It hears appeals on both criminal and civil cases and from administrative agencies. The 18 Court of Appeals judges are nominated and elected in nonpartisan elections from three districts. The three courts are located in Detroit, Lansing, and Grand Rapids.

Circuit Court

Circuit courts evolved from the old system of county courts. Presently there are 50 Circuit Courts, each with a jurisdiction of one to four counties. These are courts of record and have general responsibility for criminal, civil, and divorce cases. They generally have original jurisdiction in criminal cases when the offense constitutes a felony or has a maximum penalty exceeding one year in the state

TABLE VII-34. EFFECTIVE AND SCHEDULED CONTRIBUTION RATES UNDER THE SOCIAL SECURITY SYSTEM (FEDERAL INSURANCE CONTRIBUTIONS ACT): 1950-1990

Year	Annual maximum taxable earnings	Contribution rate (percentage of taxable earnings)						Supplementary medical insurance, monthly[d] (dollars)
		Each employer and employee			Self-employed[a]			
		OASDI[b]	HI[c]	Total	OASDI[b]	HI[c]	Total	
In effect								
1950	$3,000	1.50	—	1.50	2.25[e]	—	2.25[e]	—
1955	4,200	2.00	--	2.00	3.00	—	3.00	—
1960	4,800	3.00	--	3.00	4.50	—	4.50	—
1965	4,800	3.625	—	3.625	5.40	—	5.40	—
1970	7,800	4.20	.60	4.80	6.30	.60	6.90	5.30
1971	7,800	4.60	.60	5.20	6.90	.60	7.50	5.60
1972	9,000	4.60	.60	5.20	6.90	.60	7.50	5.80
1973	10,800	4.85	1.00	5.85	7.00	1.00	8.00	6.30
1974	13,200	4.95	.90	5.85	7.00	.90	7.90	6.70
1975	14,100	4.95	.90	5.85	7.00	.90	7.90	6.70
1976	15,300	4.95	.90	5.85	7.00	.90	7.90	7.20
1977	16,500	4.95	.90	5.85	7.00	.90	7.90	7.70
1978	17,700	5.05	1.00	6.05	7.10	1.00	8.10	8.20
1979	22,900	5.08	1.05	6.13	7.05	1.05	8.10	8.70
Future schedule								
1980	25,900	5.08	1.05	6.13	7.05	1.05	8.10	9.20
1981	29,700	5.35	1.30	6.65	8.00	1.30	9.30	9.70
1982-84	(f)	5.40	1.30	6.70	8.05	1.30	9.35	n.a.
1985	(f)	5.70	1.35	7.05	8.55	1.35	9.90	n.a.
1986-89	(f)	5.70	1.45	7.15	8.55	1.45	10.00	n.a.
1990	(f)	6.20	1.45	7.65	9.30	1.45	10.75	n.a.

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1978 (Washington, D.C.: 1979), Table 527; and Social Security Administration, General Revenue Financing of the Social Security System (Washington, D.C.: 1978), Staff Paper no. 33, Tables 11-4 and 11-5.

a. Self-employed persons brought under the program for the first time in 1951.

b. Cash benefits for old-age, survivors, and disability insurance.

c. Hospital insurance for the aged, first effective in 1966; for the disabled, in 1973.

d. Program began July 1966. Voluntary program financed by equal contributions from participants 65 and older and the federal government. Beginning in 1973, the federal government finances whatever costs are not met by contributions from disabled and aged participants. Dollar amounts effective 1 July of the years shown.

e. Data for 1951.

f. The annual percentage increase in the contribution base is equal to the annual percentage increase in average wages in covered employment, wages which are subject to Social Security taxes.

prison. There are 147 judges, elected every six years on a nonpartisan ballot from their district.

Court of Claims

The Court of Claims is a special court provided for hearing cases involving claims against the state or any of its departments, commissions, or institutions. One of the circuit judges is designated by the court administrator to act as judge in the Court of Claims when it is in session. Any claimant may bring suit in the Court of Claims provided the claim is in excess of $100.

Probate Courts

In general, Probate Courts have original jurisdiction in all cases of juvenile delinquents and dependents. These courts handle wills and estates, the commitment of mentally ill persons, and adoptions. The juvenile division of the Probate Court handles cases involving children under 17 years of age who are delinquent, neglected, or abandoned. Except for a few counties which have joined to form a probate district, each county has its own probate court. There are 83 of these courts and 103 judges, nominated and chosen in nonpartisan elections for six-year terms.

District Courts

The District Courts were created to replace the Justice of the Peace Courts, Circuit Court Commissioners, and most of the municipal courts except for those in some of the larger cities. The civil jurisdictions of the District Courts is exclusive up to $10,000. They have criminal jurisdiction in misdemeanor cases punishable by fine or imprisonment in the state prison not exceeding one year; ordinance and charter violations; arraignments; the fixing of bail and acceptance of bonds; and preliminary examinations in felony and high misdemeanor cases. A Small Claims Division was created within the District Courts to adjudicate on an optional and informal basis civil matters involving up to $300. District Courts do not handle divorce matters, injunctions, or cases which are basically equitable in nature. There are 86 District Courts divided for the most part along county lines; however, many of the less populous counties have joined to form a district, while some of the more populous are divided into two or more districts. For example, Wayne County has eleven district courts. Some counties have divided their district courts into several divisions. There are 188 judgeships.

Municipal Courts

Most of the municipal courts were abolished when the District Courts were formed, but some municipalities were permitted to elect to maintain their municipal status. There are 24 Municipal Courts located in Kent, Macomb, Oakland, and Wayne counties. There are 36 judgeships. These courts have exclusive jurisdiction over all ordinance violations, all of the criminal jurisdiction formerly held by Justices of the Peace, and civil jurisdiction in controversies where damages not exceeding $1,000 are sought. In some instances the sum is $1,500. Detroit has a special municipal court system which is covered under the Common Pleas Court

and the Recorder's Court.

Common Pleas Court

The municipal court which handles civil cases in Detroit is called the Common Pleas Court. It is a consolidation of the various Justices of the Peace Courts, and its jurisdiction in civil cases is greater than that of these former courts. There is a civil division and a landlord-tenant division. There are 13 judgeships.

Recorder's Court

The municipal court in Detroit which has jurisdiction over criminal cases is called the Recorder's Court. It also has a traffic and ordinance division. The Recorder's Court has a total of 23 judgeships, three in the Traffic and Ordinance Division.

Judicial Tenure Commission

The Judicial Tenure Commission is responsible for investigating complaints against judges and, where appropriate, recommending that the Supreme Court take certain action. Recommendations must be based upon proof of conviction of a felony, physical or mental disability which prevents the performance of judicial duties, habitual intemperance, or conduct clearly prejudicial to the administration of justice. The commission consists of nine members selected for staggered three-year terms. Four are judges elected by their colleagues in the courts in which they serve: one from the Court of Appeals, one from the Circuit Court, one from the Probate Court, and one from a court of limited jurisdiction. Three are members of the state bar; one of these shall be a judge and the other two shall not be. Two members are appointed by the governor and cannot be judges or members of the state bar.

State Bar Grievance Board

The State Bar Grievance Board was established by the Supreme Court to supervise and discipline members of the state bar. The board consists of three lawyers appointed by the Commissioners of the State Bar, two lawyers appointed by the Supreme Court, and two laymen appointed by the Supreme Court. All members of the board serve three-year terms without compensation, as only full-time employees of the board are compensated. No public funds are provided for the board's operation, and all reasonable and necessary expenses are paid by the state bar out of lawyers' annual dues.

State Appellate Defender

The State Appellate Defender's office provides indigents in criminal post-conviction cases with competent legal representation consistent with constitutional requirements. Appointments are made by a court from a staff of attorneys to handle a case until completion. The attorneys examine the lower court documents, research issues, make motions and oral arguments, and write briefs. Law students have

been employed to research cases so that the attorneys' time can be used most efficiently. The State Appellate Defender's office provides information to legislators on pending legislation and cases in areas of criminal law and publishes a criminal defense newsletter on significant recent cases in Michigan and Federal Courts.

Probation Services

Probation Services are supervised by the courts, although probation officers are provided by the Department of Corrections and by some counties and cities. Services include presentence investigations, monitoring and supervising convicted offenders placed on probation, and supervising misdemeanants who do not require incarceration.

Corrections

There is one federal prison in Michigan, located at Milan. It was constructed in 1933 to house marshals' prisoners, but is presently also being used as a correctional facility for young adults. Although its optimum population supposedly is 535 men, its present daily population fluctuates around 750. A new 100-man individual room housing unit is under construction, and two more such units are planned. A prison industry produces metal furniture for federal government use. Milan is organized into six functional units: a marriage counseling unit, a marshals' prisoners unit, two general treatment units, two drug abuse units, and an admission and orientation unit. The staff totals 233. A new federal prison is planned for Detroit, across from the present courthouse, to hold people awaiting trial and for relatively short periods of times. For additional information the Case Management Coordinator at the Federal Correctional Institution in Milan should be contacted.

Information on Michigan prisons and jails comes from the Michigan Department of Corrections. Data on state prisons and the people confined to such institutions are found in the Michigan Department of Corrections, Annual Report, the title of which has changed several times in the last years. The Michigan Department of Corrections also publishes special reports, Monthly Summary and Facilities and Census Report, which are useful and current. Information on county jails may be obtained from special releases from the Department of Corrections, Office of Jail Services. Information on city jails is not available except for several cities which currently send data to the Office of Jail Services. It is expected that in the future more information on local jails will become available.

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TABLE VIII-1. CRIMINAL OFFENSES IN MICHIGAN BY TYPE IN THE CRIME INDEX: 1960-1978

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	366	894	5,590	7,209	42,723	106,540	13,171	176,493
1961	297	883	4,776	7,576	43,496	112,209	13,442	182,679
1962	255	939	5,766	7,824	43,408	116,279	14,725	189,196
1963	242	940	6,301	7,370	44,086	125,573	17,014	201,526
1964	250	1,217	6,766	8,650	45,871	129,791	21,172	213,717
1965	344	1,407	7,881	10,341	55,017	133,516	24,208	232,714
1966	365	1,844	12,423	10,641	72,333	153,895	27,612	279,113
1967	517	1,848	16,071	12,826	91,264	173,095	33,415	329,036
1968	614	2,105	17,608	13,802	88,234	167,783	34,732	324,878
1969	726	2,231	22,880	15,080	104,177	201,466	41,594	388,154
1970	831	2,402	30,758	17,099	139,398	253,258	41,184	484,930
1971	938	2,405	29,698	18,647	151,357	264,980	44,720	512,745
1972	964	2,652	26,248	20,440	143,034	248,201	42,890	484,429
1973	1,163	3,166	25,521	23,001	142,304	247,785	49,234	492,092
1974	1,170	3,370	30,657	24,739	172,828	302,301	56,599	591,664
1975	1,042	3,477	32,354	25,751	173,134	327,367	59,755	622,880
1976	1,001	3,281	30,241	24,154	151,207	321,192	55,688	586,764
1977	905	3,565	23,840	25,149	135,568	281,548	49,394	519,917
1978	908	3,614	20,192	28,661	130,716	279,261	47,995	511,304

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1978 (East Lansing: annually), pp. 9-24; Michigan Law Enforcement Officials Report on Crime, 1968 through 1970 (East Lansing: annually).

TABLE VIII-2. YEARLY PERCENTAGE CHANGE IN INDEX OF CRIMINAL OFFENSES IN MICHIGAN BY TYPE: 1961-1978

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1961	-18.9	- 1.2	-14.6	5.1	1.8	5.3	2.1	3.5
1962	-14.1	6.3	20.7	3.3	- .2	3.6	9.5	3.6
1963	- 5.1	.1	9.3	- 5.8	1.6	8.0	15.5	6.5
1964	3.3	29.5	7.4	17.4	4.1	3.4	24.4	6.1
1965	37.6	15.6	16.5	19.1	19.9	2.9	14.3	8.9
1966	6.1	31.1	57.6	2.9	31.5	15.3	14.1	19.9
1967	41.6	.2	29.4	20.5	26.2	12.5	21.0	17.9
1968	18.8	13.9	9.6	7.6	- 3.3	- 3.1	3.9	- 1.3
1969	18.2	6.0	29.9	9.3	18.1	20.1	19.8	19.5
1970	14.5	7.7	34.4	13.4	33.8	25.7	- 1.0	24.9
1971	12.9	.1	- 3.5	9.1	8.6	4.6	8.6	5.7
1972	2.8	10.3	-11.6	9.6	- 5.5	- 6.3	- 4.1	- 5.5
1973	12.1	19.4	- 2.8	12.5	- .5	- .2	14.8	1.6
1974	8.2	6.4	20.1	7.6	21.5	22.0	15.0	20.2
1975	-10.9	3.2	5.5	4.1	.2	8.3	5.6	5.3
1976	- 3.9	- 5.6	- 6.5	- 6.2	-12.7	- 1.9	- 6.8	- 5.8
1977	-14.8	7.8	-21.2	2.79	-8.5	-11.1	-11.0	-10.3
1978	0.0	+ 1.4	-15.3	+14.0	- 3.6	- .8	- 2.8	- 1.6

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1978 (East Lansing: annually), pp. 9-24; and Michigan Law Enforcement Officials Report on Crime, 1968 through 1970 (East Lansing: annually).

TABLE VIII-3. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN MICHIGAN: 1960-1978

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	4.7	11.4	71.4	92.0	545.4	1,360.0	168.1	2,252.9
1961	3.8	11.2	60.5	96.0	551.1	1,421.6	170.3	2,314.4
1962	3.2	11.8	72.7	98.6	547.2	1,465.8	185.6	2,384.9
1963	3.0	11.7	78.2	91.5	547.1	1,558.4	211.1	2,500.9
1964	3.1	14.9	82.6	105.7	560.3	1,585.3	258.6	2,610.4
1965	4.1	16.8	94.3	123.7	658.3	1,597.7	289.7	2,784.7
1966	4.3	21.7	145.0	125.0	849.8	1,808.0	324.4	3,279.0
1967	6.0	21.4	186.2	148.6	1,057.5	2,005.7	387.2	3,812.7
1968	7.1	24.2	202.5	158.7	1,014.7	1,929.4	399.4	3,736.0
1969	8.3	25.4	260.6	171.7	1,186.4	2,294.3	473.7	4,420.4
1970	9.3	27.0	345.6	192.1	1,566.1	2,845.3	462.7	5,448.0
1971	10.4	26.7	330.1	207.3	1,682.5	2,945.5	497.1	5,699.7
1972	10.7	29.4	291.2	226.8	1,587.0	2,753.8	475.9	5,374.8
1973	11.9	34.9	281.7	253.9	1,570.5	2,734.6	543.4	5,430.9
1974	12.8	37.0	336.3	271.4	1,895.7	3,315.8	620.8	6,489.7
1975	11.4	38.0	353.3	281.2	1,890.7	3,575.1	652.6	6,802.2
1976	11.2	36.0	332.2	265.3	1,660.9	3,528.0	611.7	6,445.1
1977	9.3	38.7	261.1	272.0	1,514.9	3,126.7	542.7	5,765.4
1978	9.9	39.3	219.7	311.9	1,422.5	3,039.1	522.3	5,564.3

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1978 (East Lansing: annually), pp. 9-24; and Michigan Law Enforcement Officials Report on Crime, 1960 through 1970 (East Lansing: annually).

NOTE: Michigan population of 9,189,000 is Bureau of the Census provisional estimate as of 1 July 1978.

TABLE VIII-4. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN THE UNITED STATES: 1960-1977

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	5.1	9.5	60.0	85.4	505.6	1,027.8	182.4	1,875.8
1961	4.7	9.4	58.1	85.0	515.7	1,038.5	183.0	1,894.5
1962	4.6	9.4	59.5	87.9	532.0	1,117.4	196.8	2,007.6
1963	4.6	9.3	61.6	91.7	572.9	1,211.0	215.9	2,167.0
1964	4.9	11.2	68.0	105.4	630.9	1,306.8	246.5	2,373.7
1965	5.1	12.1	71.5	110.4	658.7	1,320.5	255.9	2,434.2
1966	5.6	13.2	80.6	119.4	716.6	1,433.4	286.0	2,654.7
1967	6.2	13.9	102.5	129.2	821.5	1,565.4	333.0	2,971.8
1968	6.9	15.8	131.5	142.7	926.6	1,735.1	391.7	3,350.2
1969	7.3	18.4	148.0	153.3	978.2	1,918.2	434.8	3,658.1
1970	7.8	18.6	171.7	163.6	1,078.4	2,065.5	455.3	3,960.9
1971	8.6	20.4	187.5	177.5	1,156.4	2,131.3	458.3	4,140.0
1972	8.9	22.4	180.3	187.3	1,133.9	1,980.4	424.6	3,937.8
1973	9.3	24.4	182.6	198.9	1,215.1	2,058.2	441.1	4,129.7
1974	9.7	26.1	208.8	214.2	1,429.0	2,473.0	460.6	4,821.4
1975	9.6	26.3	218.2	227.4	1,525.9	2,804.8	469.4	5,281.7
1976	8.7	26.4	195.8	228.7	1,439.5	2,921.4	446.1	6,255.6
1977	8.8	29.1	187.1	241.5	1,410.9	2,729.9	447.6	5,055.1

SOURCE: Federal Bureau of Investigation, Uniform Crime Reports for the United States, 1977 (Washington, D.C.: 1977) p. 37.

NOTE: Population is the Bureau of Census provisional estimates as of 1 July, except 1 April 1970 census. The 1977 population estimate was 216,332,000.

TABLE VIII-5. NONCRIME INDEX OFFENSES IN MICHIGAN, BY TYPE: 1973-1978

Offenses	1973	1974	1975	1976	1977	1978
Negligent manslaughter	249	233	211	197	331	190
Assault (nonaggravated)	39,919	41,371	44,605	43,810	46,126	53,029
Arson	3,891	4,821	5,499	5,412	5,641	5,728
Forgery and counterfeiting	9,755	10,780	9,947	8,392	6,348	5,797
Fraud	15,759	18,800	21,007	23,147	28,455	33,054
Embezzlement	2,018	2,406	2,682	2,858	7,965	1,512
Stolen property	4,275	5,285	5,429	4,933	5,717	6,943
Vandalism	96,767	122,889	137,080	135,014	149,419	167,043
Weapons (possession, etc.)	10,390	12,018	12,167	10,918	9,895	7,004
Prostitution	421	680	720	958	928	1,011
Sex offenses (except rape and prostitution)	7,257	7,791	8,045	7,657	8,710	8,069
Narcotic laws	27,215	29,102	26,891	25,483	24,198	23,094
Gambling	405	474	502	315	308	320
Against family and children	12,224	12,716	13,489	12,047	10,113	68,865
Driving under the influence	31,149	31,500	33,440	30,988	31,982	36,776
Liquor laws	7,339	13,304	16,208	17,265	17,969	18,497
Drunkenness	29,380	30,663	32,409	30,396	29,448	4,362
Disorderly conduct	34,284	40,194	49,155	43,895	53,526	73,860
Vagrancy	557	1,020	5,664	1,360	714	904
Other	134,889	140,898	143,508	132,714	108,822	120,249
TOTAL	468,143	526,945	568,658	537,759	546,424	583,008

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1972 through 1978 (East Lansing: annually), and special release.

TABLE VIII-6. NONCRIME INDEX OFFENSES BY TYPE, PER 100,000 INHABITANTS IN MICHIGAN: 1973-1978

Offenses	1973	1974	1975	1976	1977	1978
Negligent manslaughter	2.8	2.6	2.3	2.2	3.6	2.1
Assault (nonaggravated)	440.6	453.8	487.1	481.2	505.3	578.0
Arson	42.9	52.9	60.1	59.4	61.8	62.4
Forgery and counterfeiting	107.7	118.2	108.6	92.2	69.5	63.2
Fraud	173.9	206.2	229.4	254.3	311.7	360.3
Embezzlement	22.3	26.4	29.3	31.4	87.2	16.5
Stolen property	47.2	58.0	59.3	54.2	62.6	75.7
Vandalism	1,068.0	1,347.9	1,497.0	1,483.0	1,636.8	1,820.6
Weapons (possession, etc.)	114.7	131.8	132.9	119.9	108.4	76.3
Prostitution	4.7	7.5	7.9	10.5	10.2	11.0
Sex offenses (except rape and prostitution)	80.1	85.5	87.9	84.1	95.4	87.9
Narcotic laws	300.4	319.2	293.7	279.9	265.1	251.7
Gambling	4.5	5.2	5.5	3.5	3.4	3.5
Against family and children	134.9	139.5	147.3	132.3	110.8	750.6
Driving under the influence	343.8	345.5	365.2	340.4	350.3	400.8
Liquor laws	81.0	145.9	177.0	189.6	196.8	201.6
Drunkenness	324.3	336.3	353.9	333.9	322.8	47.5
Disorderly conduct	378.4	440.9	536.8	482.2	586.3	805.0
Vagrancy	6.2	11.2	61.9	14.9	7.8	9.9
Other	1,488.7	1,545.4	1,567.2	1,457.8	1,192.0	1,310.6
TOTAL	5,166.6	5,779.8	6,210.1	5,906.8	5,985.6	6,354.3

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1973 through 1978 (East Lansing: annually), and special release.

NOTE: Michigan population of 9,189,000 is Bureau of the Census provisional estimate as of 1 July 1978.

TABLE VIII-7. NUMBER OF OFFENSES REPORTED IN MICHIGAN BY MONTH: 1977

Month	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
January	28	76	417	779	4,911	11,634	1,535	24,792	44,172
February	73	207	1,912	1,399	8,912	16,644	3,486	31,307	63,940
March	76	299	1,932	2,037	11,506	23,320	4,161	45,598	88,929
April	70	221	1,766	2,021	10,168	23,270	3,757	42,587	83,860
May	77	293	1,758	2,294	10,796	23,812	3,889	45,164	88,083
June	68	357	1,858	2,318	12,426	29,169	4,416	55,346	105,958
July	83	416	2,067	2,518	13,256	28,210	4,048	51,824	102,422
August	96	341	2,107	2,413	12,960	27,668	4,174	51,179	100,938
September	73	328	2,117	2,244	12,424	25,640	3,901	49,312	96,039
October	79	324	2,139	2,303	12,996	26,477	4,116	57,233	105,637
November	94	306	2,144	2,012	11,810	22,716	4,307	47,925	91,314
December	83	245	2,108	1,861	11,100	20,531	3,885	40,501	80,314
TOTAL[a]	900	3,413	22,325	24,199	133,265	255,791	45,675	542,768	1,051,606

SOURCE: Michigan Department of State Police, special release.

NOTE: Except for January, offenses have been estimated.

a. Totals do not agree with other crime totals due to use of estimates.

TABLE VIII-8. NUMBER OF OFFENSES REPORTED IN MICHIGAN AS A PERCENTAGE OF THE MONTH OF MAXIMUM OFFENSES: 1977

Month	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
January	29.2	18.3	19.4	30.9	37.0	39.9	34.8	43.3	41.7
February	76.0	49.8	89.2	55.6	67.2	57.1	78.9	54.7	60.3
March	79.2	71.9	90.1	80.9	86.8	79.9	94.2	79.7	83.9
April	72.9	53.1	82.4	80.3	76.7	79.8	85.1	74.4	79.1
May	80.2	70.4	82.0	91.1	81.4	81.6	88.1	78.9	83.1
June	70.8	85.8	86.7	92.1	93.7	100.0	100.0	96.7	100.0
July	86.5	100.0	96.4	100.0	100.0	96.7	91.7	90.5	96.7
August	100.0	82.0	98.3	95.8	97.8	94.9	94.5	89.4	95.3
September	76.0	78.8	98.7	89.1	93.7	87.9	88.3	86.2	90.6
October	82.3	77.9	99.8	91.5	98.0	90.7	93.2	100.0	99.7
November	97.9	73.6	100.0	79.9	89.1	77.9	97.5	83.7	86.2
December	86.5	58.9	98.3	73.9	83.7	70.9	88.0	70.8	75.8

SOURCE: Michigan Department of State Police, special release.

NOTE: Except for January, offenses have been estimated.

TABLE VIII-9. NUMBER OF OFFENSES REPORTED IN MICHIGAN IN URBAN AND RURAL AREAS: 1972-1978

	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Auto theft	Total nonindex	Total
Urban areas[a]									
1972	852	1,816	24,744	15,903	101,671	183,868	36,647	274,987	640,488
1973	956	2,294	23,959	17,724	96,809	178,495	42,112	284,645	646,994
1974	1,028	2,478	28,847	19,105	116,361	215,397	48,150	323,656	755,022
1975	900	2,639	30,365	19,624	118,200	236,500	51,608	365,872	825,708
1976	877	2,475	28,712	18,711	107,165	236,797	48,453	348,258	791,448
1977	749	2,649	22,254	18,699	93,374	202,437	41,139	343,095	724,396
1978	736	2,630	18,372	21,922	89,333	193,328	39,393	349,116	714,830
Percentage change from 1972 to 1978	-13.6	44.8	-25.8	37.8	-12.1	5.1	7.5	27.0	11.6
Rural areas									
1972	112	836	1,504	4,537	41,363	64,333	6,243	163,532	282,460
1973	125	872	1,562	5,277	45,495	69,290	7,122	183,498	313,241
1974	142	892	1,810	5,634	56,467	86,904	8,449	203,289	363,587
1975	142	838	1,989	6,127	54,934	90,867	8,147	202,786	365,830
1976	124	806	1,529	5,443	44,042	84,395	7,235	189,501	333,075
1977	104	916	1,586	6,450	42,194	79,111	8,255	203,008	341,624
1978	126	984	1,820	6,739	41,383	85,933	8,602	224,353	369,940
Percentage change from 1972 to 1978	12.5	17.7	21.0	48.5	0.1	33.6	37.8	37.2	31.0

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1972 through 1978 (East Lansing: annually), pp. 45 and 46 (1978), and special release.

a. Includes all local Uniform Crime Report reporting jurisdictions of at least 2,500 population.

TABLE VIII-10. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978

County	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
Alcona	0	3	0	9	240	163	4	257	676
Alger	0	2	2	22	116	152	33	570	897
Allegan	1	24	36	100	635	1,105	117	3,383	5,401
Alpena	1	3	5	36	288	726	23	1,312	2,394
Antrim	0	0	7	21	218	275	16	775	1,312
Arenac	0	3	6	25	205	212	24	585	1,060
Baraga	1	1	0	9	91	117	16	419	654
Barry	3	6	9	75	469	864	72	3,314	4,812
Bay	8	32	93	408	1,279	3,710	227	8,204	13,961
Benzie	0	9	4	31	175	393	13	775	1,400
Berrien	10	70	199	742	3,281	7,601	558	18,051	30,512
Branch	0	6	5	51	243	634	44	1,609	2,592
Calhoun	5	51	152	378	1,982	4,443	250	8,536	15,797
Cass	2	9	16	181	622	1,106	119	3,193	5,248
Charlevoix	0	4	1	27	201	492	32	770	1,527
Cheboygan	0	1	1	23	281	326	26	1,192	1,850
Chippewa	0	3	3	30	460	904	113	2,973	4,486
Clare	0	10	10	39	872	1,016	54	2,473	4,474
Clinton	0	13	9	49	292	749	51	1,861	3,024
Crawford	1	4	8	25	346	290	33	1,047	1,754
Delta	2	4	6	47	379	832	57	1,747	3,074
Dickinson	2	3	2	16	193	467	39	1,006	1,728
Eaton	0	21	31	92	478	1,894	93	3,246	5,855
Emmet	1	4	8	22	248	701	64	1,671	2,719
Genesee	48	185	896	2,828	7,522	17,877	1,839	23,069	54,264

TABLE VIII-10. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 (cont.)

County	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
Gladwin	1	7	4	25	387	359	30	815	1,628
Gogebic	1	6	6	17	129	403	46	1,477	2,085
Grand Traverse	1	11	8	65	450	1,480	102	2,619	4,736
Gratiot	0	11	7	39	302	647	35	2,059	3,100
Hillsdale	0	8	14	87	360	792	50	2,551	3,862
Houghton	0	7	7	49	225	528	42	2,412	3,270
Huron	1	3	4	39	224	566	44	2,977	3,858
Ingham	11	105	203	642	3,581	9,735	694	15,351	30,322
Ionia	1	9	13	91	367	940	65	2,607	4,093
Iosco	1	8	3	60	474	650	32	1,656	2,884
Iron	0	2	1	13	107	196	10	507	836
Isabella	1	16	7	49	461	1,446	60	3,658	5,698
Jackson	11	44	122	605	2,190	4,719	392	11,269	19,352
Kalamazoo	10	47	258	909	3,169	8,778	524	14,330	28,025
Kalkaska	1	7	2	29	249	241	28	1,035	1,592
Kent	14	184	487	991	5,705	12,652	1,070	26,953	48,056
Keweenaw	0	1	0	7	51	43	4	119	225
Lake	3	8	11	27	638	261	16	582	1,546
Lapeer	0	29	18	69	436	1,234	92	3,495	5,373
Leelanau	0	2	1	8	68	173	9	607	868
Lenawee	0	25	41	177	816	2,292	141	7,893	11,385
Livingston	4	17	36	188	887	2,104	251	6,980	10,467
Luce	0	3	0	12	118	146	21	719	1,019
Mackinac	0	4	4	31	233	313	23	1,102	1,710
Macomb	26	110	498	1,466	6,221	21,532	3,035	51,248	84,186

TABLE VIII-10. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 (cont.)

County	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
Manistee	0	5	10	49	360	442	34	1,204	2,104
Marquette	1	15	9	114	483	1,853	142	5,088	7,705
Mason	0	5	6	20	232	850	27	2,418	3,558
Mecosta	0	4	7	27	249	1,080	50	2,675	4,092
Menominee	1	9	6	23	292	467	37	1,206	2,041
Midland	1	11	45	56	823	1,932	109	4,741	7,718
Missaukee	1	1	0	5	165	130	6	308	616
Monroe	14	32	63	199	1,112	2,558	407	7,537	11,922
Montcalm	2	21	21	33	373	480	40	1,432	2,402
Montmorency	0	0	1	2	123	108	13	229	476
Muskegon	7	51	173	700	2,272	6,313	370	10,985	20,871
Newaygo	0	10	16	40	445	598	35	1,389	2,533
Oakland	40	300	1,363	2,590	12,848	32,997	4,984	74,630	129,752
Oceana	0	8	4	34	181	281	19	980	1,507
Ogemaw	0	5	9	31	450	363	40	1,240	2,138
Ontonagon	0	1	1	1	53	153	11	267	487
Osceola	0	2	4	37	203	253	21	897	1,417
Oscoda	0	3	3	13	225	175	5	424	848
Otsego	0	4	1	24	292	418	18	1,237	1,994
Ottawa	3	23	23	107	918	2,965	181	7,205	11,425
Presque Isle	2	0	0	11	129	153	2	277	574
Roscommon	1	7	6	45	509	584	65	2,453	3,670
Saginaw	30	111	389	974	3,696	8,599	533	28,152	42,484
St. Clair	3	32	81	232	1,859	4,303	324	12,759	19,593
St. Joseph	1	18	28	94	480	1,295	81	4,424	6,421

TABLE VIII-10. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 (cont.)

County	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burlary	Larceny	Motor vehicle theft	Total nonindex	Total
Sanilac	0	5	9	53	403	545	56	2,080	3,151
Schoolcraft	0	3	1	18	166	193	14	603	998
Shiawassee	1	11	19	113	667	1,493	106	3,810	6,220
Tuscola	1	8	8	88	404	783	96	2,616	4,004
Van Buren	3	26	33	264	989	1,736	123	5,079	8,253
Washtenaw	16	107	306	741	3,433	9,602	1,263	17,252	32,720
Wayne	562	1,626	14,273	10,902	46,619	75,404	27,955	109,129	286,470
Wexford	0	5	10	40	299	876	45	1,684	2,959
TOTAL	862	3,614	20,192	28,661	130,716	279,261	47,995	573,469	1,084,770

SOURCE: Michigan Department of State Police, Uniform Crime Report, (East Lansing: 1978), pp. 35_-46.

TABLE VIII-11. NUMBER OF CRIMINAL OFFENSES REPORTED BY MICHIGAN'S 40 LARGEST CITIES, LISTED IN ORDER OF POPULATION: 1978

City	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
Detroit	498	1,288	12,283	7,530	32,574	36,830	19,493	36,081	146,577
Grand Rapids	12	118	397	741	3,586	7,039	632	11,938	24,463
Flint	37	124	682	2,214	4,763	10,037	1,262	11,759	30,878
Warren	7	27	173	432	1,904	5,873	1,153	6,646	16,215
Lansing	11	63	147	462	2,210	4,847	438	5,971	14,149
Livonia	0	6	72	145	1,004	2,933	518	4,133	8,811
Dearborn	2	15	180	154	883	4,850	1,363	6,025	13,472
Ann Arbor	5	31	115	234	1,681	4,891	479	5,078	12,514
Saginaw	21	74	287	603	2,322	4,419	278	16,784	24,788
St. Clair Shores	1	7	35	100	482	1,701	177	9,671	12,174
Westland	3	17	76	298	1,084	2,740	420	5,377	10,015
Royal Oak	0	16	53	93	696	2,151	373	5,855	9,237
Kalamazoo	7	25	192	734	1,915	4,245	263	7,842	15,223
Pontiac	15	91	525	1,007	2,488	3,641	684	9,244	17,695
Dearborn Heights	1	6	92	192	636	2,425	471	5,375	9,198
Redford Twp.	0	21	78	126	527	1,972	474	3,238	6,436
Taylor	3	18	103	227	1,324	2,411	660	5,005	9,751
Southfield	2	15	136	164	864	3,783	725	6,254	11,943
Sterling Heights	2	9	35	94	633	2,878	398	6,082	10,131
Roseville	3	9	29	7	413	1,867	243	3,863	6,434
Waterford Twp.	2	6	67	160	1,045	2,741	327	5,675	10,023
Wyoming	0	21	29	61	527	1,736	115	3,126	5,615
Lincoln Park	2	17	96	153	625	2,042	479	3,613	7,027
Bay City	5	20	54	300	714	1,838	97	3,437	6,465
Clinton Twp.	5	10	39	158	659	2,119	257	4,344	7,591

TABLE VIII-11. NUMBER OF CRIMINAL OFFENSES REPORTED BY MICHIGAN'S 40 LARGEST CITIES, LISTED IN ORDER OF POPULATION: 1978 (cont.)

City	Index crimes								
	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex	Total
Farmington Hills	3	9	44	100	664	1,385	280	3,692	6,177
East Lansing	0	5	8	31	148	865	50	1,720	2,827
East Detroit	1	6	35	99	369	1,494	229	2,285	4,518
Jackson	1	17	85	382	1,130	2,360	212	5,780	9,967
Muskegon	3	22	82	400	1,149	2,738	176	3,981	8,551
Bloomfield Twp.	1	6	18	53	267	1,131	139	1,600	3,215
Garden City	1	2	31	61	301	1,194	116	2,527	4,233
Wyandotte	2	2	24	7	370	1,276	136	20	1,837
Allan Park	0	6	44	34	426	686	179	1,368	2,743
Troy	2	11	27	40	572	2,195	295	2,813	5,955
Battle Creek	3	23	67	183	1,004	1,794	94	1,722	4,890
Madison Heights	0	11	46	55	471	1,279	221	3,676	5,759
Inkster	3	43	125	361	982	960	291	3,149	5,914
Oak Park	0	18	61	43	279	1,023	152	2,295	3,871
Midland	0	2	32	25	544	1,302	66	2,528	4,499

SOURCE: Michigan Department of State Police, Uniform Crime Report (East Lansing: 1978), pp. 71-82.

TABLE VIII-12. ROBBERY AND BURGLARY, NUMBER OF OFFENSES AND PERCENTAGE OF TOTAL, VALUE OF STOLEN PROPERTY AND PERCENTAGE OF TOTAL, AND VALUE DIVIDED BY NUMBER OF OFFENSES: 1978

Category	Offenses		Value of stolen property		Value of stolen property per offense
	Number	Percentage of total	Amount	Percentage of total	
Robbery					
Highway and streets	2,899	14.4	$5,162,477	64.0	$ 1,780.78
Gas station	1,062	5.3	236,489	2.9	222.68
Chain store	588	2.9	345,599	4.3	587.75
Bank	117	0.1	210,755	2.6	1,801.32
Other commercial house	1,800	8.9	971,985	12.1	539.99
Residence	1,409	7.0	652,414	8.1	463.03
Miscellaneous	12,317	61.0	481,215	6.0	39.07
TOTAL	20,192		8,060,934		399.21
Burglary/breaking and entering					
Residence					
Night	24,751	28.5	8,282,120	26.6	334.62
Day	26,102	30.1	9,003,955	28.9	344.95
Unknown	35,920	41.4	13,855,541	44.5	385.73
Subtotal	86,773		31,141,616		358.89
Nonresidence					
Night	15,726	35.8	5,034,231	28.4	320.12
Day	7,355	16.7	1,998,292	11.3	271.69
Unknown	20,862	47.5	10,697,763	60.3	512.79
Subtotal	43,943		17,730,286		403.48
TOTAL	130,716		48,871,902		373.88

SOURCE: Michigan Department of State Police, Uniform Crime Report (East Lansing: 1978), pp. 13 and 17.

TABLE VIII-13. ACTS OF ARSON IN MICHIGAN BY TYPE OF PROPERTIES INVOLVED: 1978

Type of property	Incendiary acts	Suspicious acts	Total
Public assembly	110	87	197
Educational			
College	3	2	5
High school	44	32	76
Junior high	31	12	43
Elementary	52	55	107
Other	6	6	12
Day care center	0	0	0
Hospital	16	8	24
Nursing home	4	3	7
Police station	6	0	6
Other institution	43	3	46
Residence			
1 and 2 family	1,080	680	1,760
Apartment, tenement, flat	299	210	509
Rooming, lodge, dormitory	7	5	12
Mobile and other	49	72	121
Mercantile stores	161	146	307
Office	27	17	44
Utilities	12	8	20
Industrial manufacturing	45	45	90
Barn	59	76	135
Lumberyard	5	7	12
Other storage	347	348	695
Construction	60	56	116
Forest fires	13	28	41
Other special	2,584	3,180	5,764
Subtotal fixed	5,063	5,086	10,149
Mobile-passenger and recreation	697	642	1,339
Other	335	570	905
Subtotal mobile	1,032	1,212	2,244
TOTAL	6,095	6,298	12,393

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

TABLE VIII-14. ACTS OF ARSON IN MICHIGAN BY TYPE OF MATERIAL USED: 1978

Type of material	Incendiary acts	Suspicious acts	Total
Gas	38	22	60
Flammable or combustible liquid	835	219	1,054
Volatile solid	32	12	44
Chemical, metal, plastic, paint	83	85	168
Natural product	1,357	1,830	3,187
Wood, paper	2,274	2,346	4,620
Fabric, textile, fur	604	523	1,127
Treated material	26	28	54
Other or undetermined	846	1,233	2,079
TOTAL	6,095	6,298	12,393

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

TABLE VIII-15. TOTAL VALUE, VALUE OF LOSS, VALUE OF INSURANCE OF PROPERTY AND CONTENTS INVOLVED IN MICHIGAN ARSONS: 1978

(In millions of dollars)

	Incendiary acts	Suspicious acts	Total
Property insurance	438,910,098	300,656,612	739,566,710
Contents insurance	125,401,238	99,819,089	225,220,327
Total insurance	564,311,336	400,475,701	964,787,037
Property value	680,490,065	395,487,828	75,977,893
Contents value	270,367,138	133,471,172	403,838,310
Total value	950,857,203	528,959,000	479,816,203
Property loss	13,670,591	10,276,906	23,947,497
Contents loss	11,271,732	6,842,655	18,114,387
Total loss	24,942,323	17,119,561	42,061,884

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

TABLE VIII-16. SUMMARY OF FEDERAL COURT CASES IN MICHIGAN: CALENDAR YEAR 1977

	Eastern Division				Western Division			
Cases	Detroit	Flint	Bay City	Division total	Grand Rapids	Marquette	Division total	Total
Civil								
Pending beginning of year	3,066	187	164	3,417	1,121	177	1,298	4,715
Assigned	3,124	181	243	3,548	643	175	818	4,366
Terminated	2,675	168	171	3,014	400	87	487	3,501
Pending, end of year	3,515	200	236	3,951	1,364	265	1,629	5,580
Criminal								
Pending, beginning of year	846	41	47	934	308	23	331	1,265
Assigned	917	48	69	1,043	475	34	509	1,543
Terminated	1,173	74	94	1,341	527	46	573	1,914
Pending, end of year	583	17	20	620	256	11	267	887
Bankruptcy								
Pending, beginning of year	3,604	1,460	882	5,946	2,016	67	2,085	8,031
Assigned	3,241	548	339	4,128	1,605	113	1,718	5,846
Terminated	3,959	910	413	5,282	1,561	129	1,690	6,972
Pending, end of year	2,886	1,098	808	4,792	2,060	53	2,113	6,905

SOURCE: Michigan Federal District Court, Eastern and Western Division, special releases.

NOTE: There are small discrepancies in the Eastern Division's Criminal, pending, end of year, due to an actual audit made in August 1977.

TABLE VIII-17. ORGANIZATIONAL USE OF FUNDS BY THE MICHIGAN COURT SYSTEM AND SOURCE OF FUNDS BY LEVEL OF GOVERNMENT: FISCAL YEAR 1977-1978

	Expenditures (dollars)	Percentage of total
Use of funds		
Organization and special projects		
Courts		
Supreme Court	$ 3,308,651	1.5
Court of Appeals	5,441,500	2.4
Circuit Court	61,560,843	27.4
Probate Court	81,345,261	36.2
District Courts	43,278,143	19.2
Recorder's Court	16,657,678	7.4
Common Pleas Court	3,814,254	1.7
Municipal Courts	2,140,162	1.0
Court of Claims	61,800	0.0
Other		
Board of Law Examiners	150,390	0.1
Appellate Defender	1,136,400	0.5
Judicial Tenure Commissio	297,800	0.1
Administrative and special projects		
State Court Administrative Office	1,382,000	.6
Judicial System Education	360,270	.1
Judicial Data Center	3,184,650	1.4
Regional Administration	594,186	.3
State Case Reimbursement[a]	83,000	0.0
TOTAL	224,796,988	100.0
Source of funds		
Level of Government		
State share	28,055,671	12.5
Local government share	105,051,934	46.7
Other (state, federal, and court revenue)	91,689,383	40.8
TOTAL	224,796,988	100.0

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), p. 83.

a. Reimbursement for cases involving State of Michigan not handled by the Court of Claims.

TABLE VIII-18. MICHIGAN SUPREME COURT, DISPOSITION OF CASES BY COURT ORDER AND CASES PENDING: FISCAL YEARS 1972-1977

Disposition of cases by court order	1972	1973	1974	1975	1976	1977
Application granted	112	147	156	107	121	110
Application denied	494	492	624	546	733	889
Opinions issued	107	90	103	113	135	129
Appeals ordered remanded, without opinion	49	34	73	71	90	76
Appeals ordered dismissed, on stipulation	9	3	9	7	11	5
Appeals ordered dismissed, on motion	4	3	2	2	2	0
Appeals ordered dismissed, for lack of progress	1	0	0	0	1	1
Other final orders, without opinion	22	27	29	39	76	27
Applications withdrawn by stipulation	7	5	5	8	12	18
Miscellaneous other orders[a]	645	665	734	908	828	(b)
TOTAL	1,450	1,466	1,735	1,801	2,009	1,255[c]
Total number of matters pending	211	486	411	518	615	697

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), pp. 5-6, similar documents for previous years, and special release.

a. Include such orders as requests of the governor for certification of questions of substantial importance requiring early determination; legislative requests for advisory opinions on important questions of law; administrative orders regulating the judiciary or bar; orders promulgating proposed or adopted court rules; grants or denial of bail; orders remanding for resentencing or for appointment of counsel; and so forth.

b. Not calculated by the Justice Department for 1977 because too time consuming.

c. See miscellaneous other orders, 1977.

TABLE VIII-21. MICHIGAN COURT OF APPEALS PENDING WORKLOAD: YEAR END 1964-1976

Year	Civil[a] cases	Criminal[a] cases	Original[b] proceedings	Total cases
1964	289	95	12	396
1965	647	302	40	989
1966	679	486	49	1,214
1967	927	639	68	1,634
1968	962	765	89	1,816
1969	902	925	64	1,891
1970	947	969	56	1,972
1971	930	1,011	33	1,974
1972	1,115	1,131	68	2,314
1973	1,116	1,273	51	2,440
1974	1,336	1,828	31	3,195
1975	1,359	2,738	30	4,127
1976	1,573	2,461	53	4,087

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), p. 12, and similar reports for earlier years.

a. Civil and criminal workload includes the following: appeal as of right, application for leave to appeal, and application for delayed appeal.
b. Original proceeding workload includes the following: Habeas corpus, sup't control, mandamus, and quo warranto.

TABLE VIII-22. MICHIGAN CIRCUIT COURT CASES, BY NATURE OF LITIGATION: FISCAL YEAR 1977

Status	Appeals from District Court: Criminal	Appeals from District Court: Civil	Criminal	Automobile negligence	Divorce	Other general civil	Total
Pending at beginning	540	517	12,128	21,264	48,457	44,812	127,718
Commenced	558	750	25,614	10,552	61,205	57,926	156,605
Disposed of by trial	33	19	2,415	630	2,520	2,287	7,904
Disposed of without trial	546	575	23,322	9,466	61,035	51,862	146,806
Total cases disposed	579	594	25,737	10,096	63,555	54,149	154,710
Pending at year end	519	673	12,005	21,720	46,107	48,589	129,613
Pending over 2 years	84	44	792	6,451	1,746	9,072	18,189
Jury cases	16	1	1,883	516	0	684	3,100
TOTAL	2,875	3,173	103,896	80,695	284,625	269,381	744,645

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), p.36.

TABLE VIII-19. MICHIGAN COURT OF APPEALS, CATEGORY AND PERCENTAGE OF APPEALS, CLAIM OF APPEAL, AND ALL OTHER FILINGS: FISCAL YEARS 1970-1977

Year	Claim of appeal		All other filings		Total
	Number	Percent	Number	Percent	
1970	1,412	64	802	36	2,214
1971	1,570	67	766	33	2,336
1972	1,617	58	1,182	42	2,799
1973	1,861	61	1,215	39	3,076
1974	2,467	69	1,112	31	3,579
1975	3,090	70	1,345	30	4,435
1976	3,007	66	1,537	34	4,544
1977	3,673	70	1,601	30	5,274

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), p. 11.

TABLE VIII-20. MICHIGAN COURT OF APPEALS, DISPOSITION BY CLASSIFICATION: FISCAL YEARS 1971-1977

Disposition	1971	1972	1973	1974	1975	1976	1977
Written opinion	1,239	1,252	1,418	1,445	1,669	1,953	2,343
Leave denied	509	519	819	613	806	834	992
Premptory order	110	223	162	122	219	173	234
Dismissed by stipulation	251	290	306	295	334	536	430
Dismissed for lack of progress	75	52	53	39	31	67	68
Dismissed by order	109	85	80	96	114	145	132
Affirmed by order	33	24	103	206	206	873	584
Appealed to supreme court prior to decision	8	14	9	8	124	3	5
TOTAL	2,334	2,459	2,950	2,824	3,503	4,584	4,788

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), p. 12.

TABLE VIII-23. NUMBER OF MICHIGAN CIRCUIT COURT JUDGES AND NUMBER OF CASES, BY TYPE COMMENCED: FISCAL YEAR 1978

Circuit number	Number of judges	Appeals from district court						
		Criminal	Civil	Criminal	Auto negligence	Divorce	Other general civil	Total
1	1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	625
2	4	1	15	485	110	1,315	1,521	3,447
3	33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	41,976
4	4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	2	4	5	296	38	871	654	1,868
6	11	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21,247
7	7	2	25	569	299	3,485	3,347	7,727
8	1	10	2	250	34	619	357	1,272
9	4	7	29	575	77	1,455	1,309	3,452
10	5	1	44	772	186	1,602	1,739	4,344
11	1	6	5	80	8	128	174	401
12	1	0	6	40	25	251	177	499
13	2	20	20	189	42	530	473	1,274
14	3	12	21	662	102	1,227	1,455	3,479
15	1	13	5	114	14	304	271	721
16	8	56	64	979	735	4,535	3,660	10,029
17	5	41	34	1,651	184	3,068	2,513	7,491
18	2	2	12	561	82	707	516	1,880
19	1	0	0	213	17	275	336	841
20	2	6	13	271	39	709	505	1,543
21	2	7	9	239	37	526	403	1,221
22	5	28	42	838	162	2,088	1,850	5,008
23	1	1	3	185	11	260	242	702
24	1	4	2	144	23	369	299	841
25	2	1	3	189	72	401	373	1,039

TABLE VIII-23. NUMBER OF MICHIGAN CIRCUIT COURT JUDGES AND NUMBER OF CASES, BY TYPE COMMENCED: FISCAL YEAR 1978 (cont.)

Circuit number	Number of judges	Appeals from district court		Criminal	Auto negligence	Divorce	Other general civil	Total
		Criminal	Civil					
26	2	13	10	200	38	401	482	1,144
27	1	2	3	160	26	329	383	903
28	1	4	5	139	19	292	344	803
29[a]	1	5	6	82	9	248	186	1,121
30	5	38	56	825	195	2,000	2,385	5,499
31	2	16	4	336	89	793	905	2,143
32	1	3	2	45	24	114	114	302
33	1	1	5	162	19	302	315	804
34	1	1	8	204	38	204	244	699
35	1	4	12	103	19	568	312	1,018
36	1	3	11	221	28	425	478	1,166
37	3	3	13	486	57	1,076	844	2,479
38	2	2	3	430	81	851	578	1,945
39	2	0	3	261	27	610	487	1,388
40	2	6	10	282	69	808	696	1,871
41	1	2	3	79	25	312	324	745
42	2	4	7	134	25	482	366	1,018
43	1	0	1	118	19	325	283	746
44	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,468
45	1	0	0	124	13	372	292	801
46	1	3	1	153	16	229	339	741
47	1	8	5	75	17	203	199	507
48	1	4	5	216	23	477	428	1,153
49[b]	1	1	5	29	10	129	187	620
50	1	2	3	74	14	184	207	484
TOTAL	147	631	975	25,311	9,440	89,937	66,636	192,930

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), pp. 21-33.

a. Figures for Clinton County are only included in the total.

b. Figures for Osceola County are only included in the total.

n.a.: not available.

TABLE VIII-24. MICHIGAN COURT OF CLAIMS' CASES: FISCAL YEARS 1976 - 1978

Cases	1976	1977	1978
Cases pending at beginning of year	301	386	474
Cases commenced during year	440	327	457
Cases remanded from upper courts	1	10	8
Total cases to be disposed of	742	723	939
Cases settled	13	6	6
Consent judgment	204	102	162
Dismissed on motion	62	58	68
Dismissed on stipulation	49	40	63
Discontinued on stipulation	8	16	12
Judgment for plaintiff	8	13	15
Judgment for defendant	8	11	14
Voluntary dismissal or by court	4	1	-
Cancel-duplicate	-	2	-
Withdrawn by plaintiff	-	-	6
Should have been filed as notice	-	-	2
Total cases disposed of during year	356	249	348
Total cases pending at end of year	386	474	591
Cases appealed to court of appeals during year	13	23	19
Appeals to court of claims under Vietnam Veteran Era Bonus Section Act			
Appeals received through 30 June 1978			393
Allowed			123
Denied			117
Dismissed			1
Returned to VVEBS			3
Total appeals disposed of during year			244
Total appeals pending 30 June 1978			149

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1975-1976 Report, 1976-1977 Report, and 1977-1978 Report (Lansing: 1977, 1978, and 1979) pp. 80-81 (1979).

TABLE VIII-25. MICHIGAN PROBATE COURT, JUVENILE CASES, BY TYPE OF LITIGATION: END OF FISCAL YEAR 1978

Division	Active cases	Percentage of total
Delinquency	23,077	43.3
Neglect/abuse	4,027	35.9
Other	4,788	9.5
Not coded [a]	479	11.3
TOTAL	32,371	100.0

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), p. 60.

NOTE: There are 83 probate courts organized along county lines.
a. Consent calendar, voluntary services, courtesy supervision, petition accepted, but not adjudicated.

TABLE VIII-26. MICHIGAN PROBATE COURT, OFFENSES ACCORDING TO THE UNIFORM CRIME FORMAT OF JUVENILES ADJUDICATED BEFORE THE COURT: FISCAL YEARS 1975-1978

Offenses	1975	1976	1977	1978
Homicide	67	64	42	58
Rape	59	47	59	88
Robbery	382	522	380	534
Aggravated assault	293	298	243	345
Burglary	3,044	3,174	2,208	3,632
Larceny	2,689	2,765	2,186	3,289
Stolen property	389	434	359	557
Auto theft/auto taking	709	673	574	932
Other assault	360	602	374	606
Forgery	66	93	76	114
Vandalism	522	545	451	669
Weapons violations	144	187	202	320
Sex violations	131	150	101	187
Drugs	787	604	455	676
Liquor violations [a]	305	348	288	242
Other adult offenses	1,317	948	614	1,086
Juvenile status offenses [b]	4,915	5,368	2,821	4,382
TOTAL	16,179	16,822	11,433	17,717

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), p. 61.
NOTE: There are 83 probate courts organized along county lines.

a. Prior to fiscal 1975 these were included in "Other adult offenses."
b. Juvenile status offenses include runaways, truancy, incorrigibles, and curfew violation.

TABLE VIII-27 MICHIGAN DISTRICT COURT CASES, BY TYPE OF LITIGATION: FISCAL YEAR 1977

Cases	Civil			Criminal		
	Civil	Small claims	Landlord summary	Traffic	Nontraffic	Total
Pending at beginning	41,568	9,432	4,401	204,903	70,458	330,762
Commenced	92,452	45,046	41,673	1,365,517	238,966	1,783,654
Disposed - magistrate	0	0	0	224,171	22,779	246,950
Disposed - traffic bureau	0	0	0	708,515	18,894	727,409
Disposed - trial without jury	8,509	11,144	11,451	56,361	21,800	109,265
Disposed - without trial	71,193	28,622	27,190	275,399	143,045	545,449
Disposed - trial by jury	721	0	60	2,185	1,845	4,811
FAC cases	6	8	0	75,461	0	75,475
Arraignments - exam waived	0	0	0	378	9,829	10,207
Arraignments - exam conducted	0	0	0	361	12,787	13,148
No progress	10,900	3,386	1,999	3,808	1,120	21,213
Total cases disposed	91,329	43,160	40,700	1,346,639	232,099	1,753,927
Pending at year end	42,591	11,318	5,374	223,781	77,325	360,489

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), p. 121.

TABLE VIII-29. CASES BEFORE THE DETROIT COMMON PLEAS COURT: FISCAL YEAR 1977

Type of case	Number of cases	Money judgments
Civil Division		
Cases pending 1 July 1976	18,284	
Commenced		
Principal	55,591	
Garnishment	80,043	
TOTAL	135,634	
Cases Disposed		
Principal	58,543	
Garnishment	78,148	
TOTAL	136,691	
Cases pending 30 June 1977	17,227	
Category of cases disposed		
Assumpsit	39,480	
Garnishment discontinuances and releases	3,169	
Trespass	8,181	
Replevins (claim and delivery)	10,886	
Criminal	4	
TOTAL	61,720	
Money judgment disposition		
Contested cases		$ 3,836,480.37
Default cases and judgments		20,406,628.34
TOTAL		24,243,108.71
Landlord-Tenant Division		
Cases commenced		
Rent cases	32,832	
Writ ordered	8,875	
Land contract	1,054	
Jury cases	46	
TOTAL	42,807	
Cases disposed		
Rent cases	23,736	
Termination	3,998	
Trespass	471	
Land contract	752	
TOTAL	28,957	
Cases pending 30 June 1977	13,850	
Money judgment disposition		
Contested cases		2,180,973.54
Default cases and judgments		7,711,274.77
TOTAL		9,892,248.31

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), pp. 57-59.

TABLE VIII-28. MICHIGAN MUNICIPAL COURT CASES, BY TYPE OF LITIGATION: FISCAL YEAR 1977

	Civil			Criminal		
Cases	Civil	Small claims	Landlord summary	Traffic	Nontraffic	Total[a]
Pending at beginning	2,092	11	651	128,530	25,229	156,513
Commenced	9,578	498	3,600	190,690	41,437	245,803
Disposed - magistrate	0	0	0	4,055	1,150	5,205
Disposed - traffic bureau	0	0	0	100,418	20,461	120,879
Disposed - trial without jury	1,274	24	733	12,848	4,865	19,744
Disposed - without trial	6,147	475	2,192	23,712	11,465	43,991
Disposed - trial by jury	8	0	2	107	141	258
FAC cases	0	0	0	6,357	0	6,357
Arraignments - exam waived	0	0	0	70	1,009	1,079
Arraignments - exam conducted	0	0	0	16	1,327	1,343
No progress	2,217	0	1,087	41,567	978	45,849
Total cases disposed	9,646	499	4,014	189,150	41,396	244,705
Pending at year end	2,024	10	237	130,070	25,270	157,611

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), p. 128.

NOTE: There are 24 municipal courts. Totals include Allen Park, Clawson, East Detroit, Ecorse, Grandville, Grosse Pointe, Grosse Pointe Farms, Grosse Pointe Park, Grosse Pointe Woods, Hamtramck, Harper Woods, Highland Park, Kentwood, Lincoln Park, Melvindale, River Rouge, Riverview, St. Clair Shores, Southgate, Taylor, Walker, Wyandotte, and Wyoming. The City of Detroit has its own court system and is covered under the Recorder's Court and the common pleas court.

a. Data incomplete due to late reporting of Troy in all categories.

TABLE VIII-30. CASES BEFORE THE RECORDER'S COURT, DETROIT MUNICIPAL COURT: FISCAL YEAR 1977

Cases and disposition	Number of cases	Cases and disposition	Number of cases
		Felony Division	
Cases pending 1 July 1976	5,238		
Warrents issued:		Sentences and commitments:	
Files	10,704	Probation	5,384
Extra defendants	2,236	Committed	4,060
TOTAL	12,940	Other	210
		TOTAL	9,654
Disposition:			
Guilty	8,922	Cases pending 30 June 1977	3,350
Acquitted	621		
Dismissals	4,352		
Other	807		
TOTAL	14,702		
		Misdemeanor Division	
Warrents issued:		Dispositions:	
Files		Not guilty	163
High misdemeanors	193	Dismissed	1,793
Drug related	39	Suspended sentences	155
Neglect of minors	17	Confinement DeHoCo	792
Loitering	68	Probations	919
Malicious destruction of property	413	Fines and costs or confinement	2,280
Assault and battery	1,395		
Receiving and concealing	104	TOTAL	6,102
Entering without permission	137		
Engaged in illegal occupation	90	Capiases issued	977
Larceny under $100.00	3,612		
Firearms	153	Writs and miscellaneous matters	704
Indecent and obscene conduct	7		
Trespassing	22		
Air pollution	58		
Other	595		
Subtotal	6,903		
Extra defendants	390		
TOTAL	7,293		

TABLE VIII-30. CASES BEFORE THE RECORDER'S COURT, DETROIT MUNICIPAL COURT: FISCAL YEAR 1977 (cont.)

Cases and disposition	Number of cases	Cases and disposition	Number of cases
		Traffic and Ordinance Division	
Felony and high misdemeanor cases		City ordinance violations received	
Pending, 1 July 1976	125	Arrest (incl. oper. license,	
New cases commenced	35	gun control, knife ord., etc.)	10,565
Cases disposed	50	Accident	6,279
Pending, 30 June 1977	110	Moving	153,115
		Parking	632,739
Preliminary examinations conducted	18	Pedestrian	3,739
Preliminary examinations waived	7	Miscellaneous	24,639
		City inspector cases	42,952
State misdemeanor cases			
Pending, 1 July 1976	2,557	TOTAL	874,028
New cases commenced	8,825		
Cases disposed	8,118		
Pending, 30 June 1977	3,264		

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1976-1977 Report (Lansing: 1978), pp. 52-56.

NOTE: The municipal court in Detroit is a court of record and is called the "Recorder's Court."

TABLE VIII-31. SUMMARY OF OTHER MICHIGAN JUDICIAL STATISTICS: FISCAL YEAR 1978

	Retired or former judges	Active judges	Number of cases	Active cases	Closed cases
Assignment of judges[a]					
Court of Appeals	4	18			
Circuit Court	112	1,014			
Recorder's Court	91	76			
District Court	127	800			
Common Pleas Court	2	2			
Probate Court	91	787			
Municipal Court	2	13			
Court of Claims	5	50			
TOTAL	434	2,760			
Judicial Tenure Commission[b]					
Number of grievances filed during fiscal year			140		
Dispositions					
Dismissed			172		
Admonition or discipline			16		
TOTAL			188		
Pending 30 June 1978			36		
State Bar Grievance Board[c]					
Matters handled not constituting lawyer misconduct			1,687		
Complaints			753		
Lawyers disciplined			62		
State Appellate Defender[d]					
Judicial level					
Trial courts				125	119
Court of Appeals				891	905
Supreme Court				152	138
Federal court				7	1
TOTAL				1,175	1,153

SOURCE: State of Michigan, Department of Justice, State Court Administrator, 1977-1978 Report (Lansing: 1979), pp. 82, 95-108.

a. Assignments of judges are made to fill vacancies due to retirement, death, illness, and disqualification of a particular judge or bench. Assignments often are made to provide temporary assistance due to workload or lengthy trials. Active judges often assigned from one court to another.
b. The Michigan Judicial Tenure Commission was formed 28 March 1969 to consider grievances against judicial officers.
c. The State Bar Grievance Board was established in 1970 to supervise members of the State Bar of Michigan.
d. The State Appellate Defender's Office was established in 1970 to provide, in criminal postconviction matters, competent legal representation consistent with constitutional requirements.

TABLE VIII-32. PRISONERS, BY OFFENSE, IN THE FEDERAL CORRECTIONAL INSTITUTION, MILAN, MICHIGAN: 31 DECEMBER 1977

Offense	Number reported	Percentage of reported	Estimated number
Burglary	7	1.5	8
Counterfeiting	12	2.5	14
Drug laws	99	20.4	116
Embezzlement	1	.2	1
Firearms	35	7.2	41
Forgery	23	4.7	27
Immigration	1	.2	1
Kidnapping	1	.2	1
Larceny	119	24.5	139
Robbery	117	24.1	137
Securities, transport, false-forged	8	1.6	9
Hijacking commercial plane	1	.2	1
White slavery	3	.6	3
Other federal law violations	28	5.8	32
District of Columbia, local cases	23	4.7	27
Government reservation, high seas, and territorial	8	1.6	9
Not reported	84	--	4
Total reported	486	100.0	566
GRAND TOTAL	570	--	570

SOURCE: Federal Correctional Institution, Milan, Michigan, special release.

NOTE: Excludes detentioners.

TABLE VIII-33. COMMITMENTS BY RACE IN THE FEDERAL CORRECTIONAL INSTITUTION, MILAN, MICHIGAN: 31 DECEMBER 1977

Race	Number reported	Percentage of reported	Estimated number
White	242	47.8	273
Black	263	52.0	296
Red	1	.2	1
Not reported	64	--	--
Total reported	506	100.0	570
GRAND TOTAL	570	--	570

SOURCE: Federal Correctional Institution, Milan, Michigan, special release.

NOTE: Excludes detentioners.

TABLE VIII-34. MICHIGAN DEPARTMENT OF CORRECTIONS' ESTIMATED EXPENDITURES BY MAJOR PROGRAMS, ORGANIZATIONAL COMPONENTS, AND OBJECT OF EXPENDITURE: FISCAL YEAR 1977-1978

Purpose	Expenditure	Percentage
Major program		
Inmate cure and control	$60,102,000	47.7
Prison admin. and admin. support	15,624,000	12.4
Field services	18,018,000	14.3
Treatment	12,852,000	10.2
Clinical	12,978,000	10.3
Central office administration	4,032,000	3.2
Prison industries	2,394,000	1.9
TOTAL	126,000,000	100.0
Organizational components		
State Prison of Southern Michigan, Jackson	33,012,000	26.2
Field services	18,018,000	14.3
Michigan reformatory	10,710,000	8.5
Office of Health Care	12,978,000	10.3
State House of corrections and Branch Prison, Marquette	9,576,000	7.6
Conservation prison camps	6,930,000	5.5
Riverside Corrections facility	6,552,000	5.2
Michigan Training Unit, Ionia	5,670,000	4.5
Muskegon Correctional Facility	4,662,000	3.7
Detroit House of Correction	--	--
Central office administration	4,032,000	3.2
Prison industries	2,394,000	1.9
Cassidy Lake Technical Center	1,764,000	1.4
Ypsilanti Correctional Facility	37,800	0.03
Huron Valley Women Facility	3,780,000	3.0
Kinross Correctional Facility	5,670,000	4.5
Dunes	126,000	0.1
TOTAL	126,000,000	100.0
Object of expenditure		
Salaries and wages	81,144,000	64.4
C.S.S.M.	19,656,000	15.6
Retirement	9,450,000	7.5
Food	6,174,000	4.9
Longevity and insurance	4,914,000	3.9
Fuel	1,890,000	1.5
Travel	1,260,000	1.0
Equipment	1,512,000	1.2
TOTAL	126,000,000	100.0

SOURCE: Michigan Department of Corrections, Annual Report Dimensions (Lansing: 1978), pp. 96-97.

NOTE: The total expenditure of $90,050,500 is from state funding, including $4.2 million from state school aid. In addition to the state funds, $2.8 million from federal sources was utilized for a total of $92,850,500 estimated expenditures on corrections.

TABLE VIII-35. AVERAGE PER PRISONER COST PER DAY OF PRISONER CARE AND CUSTODY IN VARIOUS MICHIGAN CORRECTIONAL FACILITIES: FISCAL YEARS 1976-1977 AND 1977-1978

Facility	1976-1977	1977-1978
Corrections camps	$ 10.95	$ 11.56
Cassidy Lake Technical School	14.54	17.16
Marquette Branch Prison and Michigan Intensive Program Center	24.27	26.44
Michigan Training Unit	15.44	17.82
Muskegon Correctional Facility	17.94	20.75
Michigan Reformatory	18.58	20.05
Riverside Correctional Facility	17.81	27.41
State Prison of Southern Michigan	14.45	16.20
Detroit House of Correction - Women's Division	25.07	n.a.
Huron Valley Women's Facility	(a)	30.08
Kinross Correctional Facility	(a)	25.52

SOURCE: Michigan Department of Corrections, Annual Report, Dimensions (Lansing: 1977), p. 90, and Annual Report, Dimensions (Lansing: 1978), p. 97.

(a). not yet in operation.

n.a.; not available.

TABLE VIII-36. LOCATION OF INMATES UNDER THE JURISDICTION OF THE MICHIGAN DEPARTMENT OF CORRECTIONS: 1970-1978

Facility	1970	1971	1972	1973	1974	1975	1976	1977	1978
Cassidy Lake Technical School, Chelsea	256	260	209	192	262	264	285	313	308
Conservation Prison Camp Program[a]	1,055	1,097	969	809	969	1,249	1,428	1,583	1,561
Correction centers for female[b]	7	12	40	26	17	52	42	70	61
Correction centers for male[c]	50	116	121	180	222	409	444	547	553
Detroit House of Corrections, female[d]	202	244	172	163	202	248	347	0	0
Detroit House of Corrections, male[d]	6	40	28	2	0	0	0	0	0
Huron Valley Women's Facility[e]	0	0	0	0	0	0	0	429	433
Kinross Correction Facility[f]	0	0	0	0	0	0	0	0	0
Michigan Intensive Program Center, Marquette[e]	0	0	0	25	44	68	87	85	85
Michigan Reformatory, Ionia	1,230	1,263	1,068	782	900	1,303	1,488	1,488	1,497
Michigan Training Unit, Ionia	604	717	674	658	693	704	804	838	839
Muskegon Correctional Facility	0	0	0	0	206	227	589	632	631
Reception-Diagnostic Center, Jackson[f]	806	784	656	637	461	509	472	473	495
Resident home, females	0	0	0	2	1	5	9	46	44
Resident home, males	0	0	0	31	70	93	293	328	324
Riverside Correctional Facility[g]	0	0	0	0	0	0	0	556	556
State House of Correction and Branch Prison, Marquette[h]	724	776	728	725	728	798	882	907	905
State Prison of Southern Michigan, Jackson[i]	4,139	4,238	3,806	3,642	3,855	4,844	5,199	5,577	5,532
Males	8,870	9,291	8,259	7,683	8,410	10,468	11,971	13,356	13,286
Females	209	256	212	191	220	305	398	545	538
TOTAL	8,409	9,079	9,547	8,471	7,874	8,630	10,773	12,369	13,824

TABLE VIII-36. LOCATION OF INMATES UNDER THE JURISDICTION OF THE MICHIGAN DEPARTMENT OF CORRECTIONS: 1970-1978 (cont.)

Facility	1970	1971	1972	1973	1974	1975	1976	1977	1978

SOURCE: Michigan Department of Corrections, Annual Report, Dimensions (Lansing: 1976), p. 87, and special release.

a. Headquartered at Grass Lake. Camp facilities are maintained throughout the state in which inmates work on Department of Natural Resources projects.
b. Inmates who enter a work-pass program within three months of their release from incarceration are housed in the Detroit Correction Center.

c. Inmates who enter a work-pass program within three months of their release from incarceration are housed in the Detroit Correction Center or in one of ten others that have been established in YMCAs in major Michigan cities.
d. Female inmates of the state are confined, under contractual agreement, in the Detroit House of Corrections, a city owned and operated institution. The Department of Corrections placed a few men in the men's division of that facility to assist in necessary maintenance. With the opening of Huron Valley Women's Facility on 5 August 1977, the State ended its agreement with the City of Detroit and Detroit became responsible for the whole facility.

e. Huron Valley Women's Facility opened 5 August 1977 and replaced the Detroit House of Corrections' Women's division. It immediately had to be expanded through the use of trailers.
f. Kinross Correction Facility was obtained with the closing of the U.S. Air Force Base and opened for inmates 19 January 1978.

g. Riverside Correctional Facility was acquired from the Department of Mental Health, and the first prisoners moved in 12 January 1977. It is for geriatric prisoners and younger offenders who have had behavior problems in other institutions.

h. Michigan Intensive Program Center opened in 1973 at Marquette to deal with those who have had extreme behavior problems in other institutions.
i. All male commitments are received in the Reception-Diagnostic Center, attached to the State Prison of Southern Michigan, but operated as a separate unit. New inmates do not come in contact with those in the main institution. Commitments from the courts of the Upper Peninsula and parole violators returned to the Upper Peninsula are delivered to Marquette for transfer to the Reception-Diagnostic Center.

TABLE VIII-37. CAPACITY AND OTHER CHARACTERISTICS OF STATE OF MICHIGAN CORRECTIONAL FACILITIES: 30 March 1978

Facility	Year built[a]	Sex of inmates	Age group of offender	Security of facility	Rated capacity[b]	Total capacity[c]	Resident census
Cassidy Lake Technical School, Chelsea	1944	male	under 22	Minimum	272	350	320
Conservation Prison Camp Program	1948	male	over 16	Minimum	1,196	1,610	1,626
Correction centers for female	1970	female	over 16	Community	62	62	62
Correction centers for male	1969	male	over 16	Community	583	583	583
Huron Valley Women's Facility[d]	1977	female	over 16	Admin. seg.-min.	264	414	456
Kinross Correctional Facility[e]	1978	male	over 16	Medium	456	482	405
Mental Health Institution	--	--	--	Medium	--	--	29
Michigan Intensive Program Center, Marquette	1973	male	over 22	Admin. seg.-max.	89	85	77
Michigan Reformatory, Ionia	1877	male	under 22	Admin. seg.-min.	1,183	1,591	1,427
Michigan Training Unit, Ionia	1958	male	16 - 25	Medium	724	866	844
Muskegon Correctional Facility	1974	male	20 - 29	Medium	589	645	628
Reception-Diagnostic Center, Jackson	1956	male	over 16	Close	477	477	408
Resident Home, female	--	female	over 16	Community	39	39	39
Resident Home, male	--	male	over 16	Community	367	367	367
Riverside Correctional Facility, Ionia[f]	1953-65	male	under 20-over 60	Admin. seg.-med.	557	818	624
State House of Correction and Branch Prison, Marquette	1899	male	over 22	Admin. seg.-min.	874	960	926
State Prison of Southern Michigan, Jackson	1930	male	over 22	Admin. seg.-min.	4,531	5,465	5,516
TOTAL					12,263	14,814	14,337

SOURCE: State of Michigan, Department of Corrections, Annual Report, Dimensions (Lansing: 1977), pp. 40-80, and special release, "Facilities and Census Report, 3-30-78."

a. Year built or first used by state only approximate. b. Rated capacity is capacity without crowding.

c. Total capacity is rated capacity plus housing prisoners in infirmary and temporary bunks in gyms, and so forth. In 1977-1978 temporary trailers used at Huron Valley, Marquette, and State Prison, Jackson.

d. Huron Valley Woman's Facility is a new facility which opened 5 August 1977 to replace the aging Detroit House of Corrections. It is already overcrowded.

e. Kinross Correctional Facility was obtained from the U.S. Air Force and converted to a correctional facility, opening 19 January 1978.

f. Riverside Correctional Facility was newly opened in January 1977 by conversion and renovation of another facility from the Department of Mental Health.

TABLE VIII-38. CAPACITY AND MICHIGAN PRISON CENSUS BY TYPE OF SECURITY: 30 MARCH 1978

Type of security	Rated capacity[a]		Total capacity[b]		Resident census 30 March 1978[c]	
	Number	Percent	Number	Percent	Number	Percent
Administrative segregation	615	5.0	629	4.2	625	4.4
Maximum	580	4.7	616	4.2	603	4.2
Close	3,855	31.4	4,686	31.6	4,415	30.8
Medium	2,817	23.0	3,571	24.1	3,428	23.9
Minimum	3,159	25.8	4,075	27.5	4,129	28.8
Clinical service	186	1.5	186	1.3	86	.6
Subtotal incarcerated	11,212	91.4	13,763	92.9	13,286	92.7
Community based	1,051	8.6	1,051	7.1	1,051	7.3
TOTAL	12,263	100.0	14,814	100.0	14,337	100.0

SOURCE: Michigan Department of Corrections, special release, "Facilities and Census Report, 3-30-78."

a. Capacity without crowding.

b. Rated capacity plus housing prisoners in gymnasiums, infirmaries, hallways, trailers, and so forth, in temporary bunks.

c. Prison population has increased an average of 24 inmates per week over the last year.

TABLE VIII-39. COMMITMENTS BY RACE AND SEX IN MICHIGAN PRISONS: 1966 AND 1977

Race and sex	1966 Number	1966 Percent	1977 Number	1977 Percent
White, female	58	1.9	n.a.	n.a.
White, male	1,667	54.0	2703	38.2
Nonwhite, female	54	1.7	n.a.	n.a.
Nonwhite, male	1,309	42.4	3964	56.1
TOTAL	3,088	100.0	7071	100.0

SOURCE: Michigan Department of Corrections, Annual Report, Dimensions (Lansing: 1978), pp. 64-65.

TABLE VIII-40. COMMITMENTS BY RACE AND BIRTH (IN-STATE AND OUT-STATE) IN MICHIGAN PRISONS: 1966 AND 1976

Category	1966 Number	1966 Percent	1976 Number	1976 Percent
White Michigan born	1,130	36.6	2,190	34.6
White Out-state born	595	19.3	714	11.3
Nonwhite, Michigan born	608	19.7	2,236	35.3
Nonwhite Out-state born	755	24.4	1,188	18.8
TOTAL	3,088	100.0	6,328	100.0

SOURCE: Michigan Department of Corrections, Annual Report, Dimensions (Lansing: 1977), p. 23.

TABLE VIII-41. INMATES WITH PREVIOUS CORRECTIONAL TERM COMMITMENTS ADMITTED BY MICHIGAN DEPARTMENT OF CORRECTIONS: 1976

No. of terms	Number with prison terms	Percentage of total committed	Number with jail terms	Percentage of total committed	Number with probation	Percentage of total committed
1	1,361	20.6	1,473	22.3	1,027	15.6
2	539	8.2	825	12.5	262	4.0
3	225	3.4	421	6.4	73	1.1
4	90	1.4	239	3.6	21	0.3
5	46	0.7	145	2.2	7	0.1
6	20	0.3	91	1.4	6	0.1
7 or more	19	0.3	52	0.8	0	0.0
TOTAL	2,300	34.9	3,244	49.2	1,396	21.2

SOURCE: Michigan Department of Corrections, Annual Report, Dimensions (Lansing: 1977), p. 25.

NOTE: Total 1976 commitments were 6,596.

TABLE VIII-42. MICHIGAN COUNTY JAILS, YEAR BUILT, RATING, AND CAPACITY: OCTOBER 1977

County	Year built	Rating		Capacity
		Jail rating	Building rating	
Alcona	1962	G	G	38
Alger	1965	G	G	13
Allegan	1963	G	G	64
Alpena	1956	F	F	24
Antrim	1955	F	F	18
Arenac	1952	F	F	14
Baraga	Closed	-	-	-
Barry	1971 & 1977	F	E	43
Bay	1978	P	E	81
Benzie	1959	P	F	12
Berrien	1951	F	G	100
Branch	1958	F	G	51
Calhoun	1955	F	G	135
Cass	1958	F	F	28
Charlevoix	1971	G	E	31
Cheboygan	1969	F	E	18
Chippewa	1956	G	G	56
Clare	1957	G	G	20
Clinton	1950	F	F	32
Crawford	1969	G	G	18
Delta	1964	F	G	44
Dickinson	1889	P	P	18
Eaton	1961	G	G	59
Emmet	1967	F	G	20
Genesee	1930 & 1972	G	F	325
Gladwin	1966	E	E	20
Gogebic	1965	G	E	24
Grand Traverse	1965	G	G	57
Gratiot	1939	F	P	43
Hillsdale	1974	G	E	27
Houghton	1963	F	G	25
Huron	1952	F	G	40
Ingham	1964	E	E	242
Ionia	1956	F	G	34
Iosco	1955	G	G	31

TABLE VIII-42. MICHIGAN COUNTY JAILS, YEAR BUILT, RATING, AND CAPACITY: OCTOBER 1977 (cont.)

County	Year built	Rating		Capacity
		Jail rating	Building rating	
Iron	1936	F	F	28
Isabella	1961	G	G	40
Jackson	1952	F	F	84
Kalamazoo	1973	E	E	268
Kalkaska[a]	1976	-	-	4
Kent[b]	1958 & 1977	F	F	499
Keweenaw	1886	P	P	8
Lake	1964	G	G	20
Lapeer	1961	G	G	36
Leelanau	1959	F	G	18
Lenawee	1955	G	G	68
Livingston	1972	G	E	61
Luce[a]	--	-	-	5
Mackinac	1973	E	E	26
Macomb	1954 & 1977	G	E	366
Manistee	1953	F	F	29
Marquette	1924 & 1976	F	P	60
Mason	1959	G	G	32
Mecosta	1964	E	E	30
Menominee	1958 & 1976	P	P	17
Midland	1958 & 1977	E	G	57
Missaukee	1958	F	F	12
Monroe	1929	F	F	71
Montcalm	1966	E	G	54
Montmorency[a]	--	-	-	2
Muskegon	1960	F	G	154
Newaygo	1967	F	G	36
Oakland	1972	E	E	478
Oceana	1968	F	G	26
Ogemaw	1960	G	G	17
Ontonagon	1965	F	G	21
Osceola	1964	G	E	20
Oscoda	Closed	-	-	-
Otsego	1968	F	G	22
Ottawa	1961	F	G	58

TABLE VIII-42. MICHIGAN COUNTY JAILS, YEAR BUILT, RATING, AND CAPACITY: OCTOBER 1977 (cont.)

County	Year built	Rating		Capacity
		Jail rating	Building rating	
Presque Isle	1974	E	E	18
Roscommon	1964	G	G	20
Saginaw	1972	E	E	210
St. Clair	1954	G	G	126
St. Joseph	1962	G	G	51
Sanilac	1954	G	G	30
Schoolcraft	1958	F	G	18
Shiawassee	1963	F	G	45
Tuscola	1966	E	G	46
Van Buren	1963	G	F	65
Washtenaw	1960[c] & 1977	F	P	134
Wayne[d]	1929 & 1963	F	F	1,019
Wexford	1963	G	G	24

SOURCE: Michigan Department of Corrections, Office of Jail Services, special release.

a. Lock-up.

b. Includes honor camp.

c. Jail was remodeled in 1960.

d. A 1975 court order reduced Wayne's capacity to 720. In 1977 a 250-bed temporary sheriff's detention annex was completed.

E: Excellent

G: Good

F: Fair

P:. Poor

IX. ELECTIONS AND GOVERNMENT ORGANIZATION 469

Statistics on governmental organization are collected on the occasion of each Census of Governments conducted by the U.S. Bureau of the Census. That census also is a source of considerable detail on government financing and employment, the subject of Chapter X.

Other major sources of information regarding Michigan government organization are the biennial Michigan Manual, the Journal of the Senate, and the Journal of the House. In addition, The Book of the States presents information on all states and is a good source for comparative statistics.

Table IX-11 is the only table in the chapter which gives an indication of the Michigan legislature's output. The table presents some of the scarce readily quantifiable data describing the legislature. For those interested in assessing legislative performance, the Citizens Conference on State Legislatures has developed "The Legislative Evaluation Study." This body is a national, nonprofit, nonpartisan organization whose purpose is to help state legislatures improve themselves.

On 1 June 1977 the new Michigan laws relating to campaign financing took effect. As under the old laws, the spending reports for state level office candidates will be on file with the Secretary of State. However, the responsibility for filing is shifted to the candidate (or treasurer of a committee) instead of resting with the county clerk. Reports must still be filed with the clerk of the county in which the candidate resides.

There is a spending limit of one million dollars for gubernatorial candidates who accept "qualifying contributions" (the state level counterpart of federal matching funds). There are no longer spending limits for other offices.

In addition to the filing and expenditure alterations, an organizational change has been made. Each candidate must have only one "candidate committee." Candidates choosing to have more than one committee must report these as "other committees." The Secretary of State is to keep the records on file by committee name (I. D. code) only, not by candidate supported or by office and district. This represents a significant departure from the past, when committees supporting a candidate were filed together under the appropriate district and office.

The official version of the Toledo War was located in Adjutant General Jno. Robertson's Michigan in the War, rev. ed. (Lansing: W. S. George & Co., State Printers and Binders, 1882), pp. 1028-1032. It is reproduced in the Appendix to this chapter.

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TABLE IX-1. NUMBER OF LOCAL GOVERNMENTAL UNITS IN MICHIGAN AND THE UNITED STATES, BY TYPE: 1942, 1952, 1957, 1962, 1967, 1972, AND 1977

Type	1942	1952	1957	1962	1967	1972	1977
				Michigan			
Counties	83	83	83	83	83	83	83
Municipalities	479	489	498	509	522	532	531
Townships	1,265	1,264	1,262	1,259	1,253	1,248	1,245
Special districts	8	84	102	99	110	139	171
School districts	6,270	4,845	3,214	1,866	935	647	608
TOTAL	8,105	6,766	5,159	3,816	2,903	2,649	2,638
				United States			
Counties	3,050	3,049	3,047	3,043	3,049	3,044	3,042
Municipalities	16,220	16,778	17,167	17,997	18,048	18,517	18,856
Townships	18,919	17,202	17,214	17,144	17,105	16,991	16,822
Special districts	8,299	12,319	14,423	18,323	21,264	23,885	26,140
School districts	108,579	67,346	50,453	34,678	21,782	15,781	15,260
TOTAL	155,116	116,743	102,353	91,185	81,248	78,218	80,120

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1945 through 1975 (Washington, D.C.: annually), Table 415 (1975), and 1977 Census of Governments, Preliminary Report No. 1, Governmental Units in 1977 (Washington, D.C.: 1977), pp. 1, 6.

TABLE IX-2. REPORTED VOTING AND REGISTRATION OF PERSONS OF VOTING AGE, BY SEX AND AGE GROUP, MICHIGAN, THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, AND THE UNITED STATES: NOVEMBER 1976

Age group	Both sexes		Male		Female	
	Percent reported registered	Percent reported voted	Percent reported registered	Percent reported voted	Percent reported registered	Percent reported voted
			Michigan			
18 - 29	58.6	50.7	56.7	50.2	60.5	51.2
30 - 39	74.4	67.7	74.6	67.7	74.2	67.8
40 - 59	76.5	71.5	74.4	69.5	78.4	73.5
60 and older	75.5	69.6	80.2	74.2	71.7	65.9
TOTAL	70.4	64.0	69.8	63.8	70.9	64.2
			Detroit SMSA			
18 - 29	61.6	52.4	60.7	53.7	62.7	50.8
30 - 39	69.6	63.5	68.5	62.7	70.6	64.3
40 - 59	76.1	71.3	76.6	72.3	76.2	70.4
60 and older	70.3	65.9	80.6	78.3	63.4	58.2
TOTAL	70.3	64.3	70.8	65.7	69.9	62.9
			United States			
18 - 29	51.3	42.2	50.8	40.9	51.8	43.4
30 - 39	65.5	58.7	64.8	57.9	66.1	59.5
40 - 59	75.5	68.7	76.1	69.7	74.9	67.9
60 and older	71.4	62.2	76.6	68.3	67.8	58.0
TOTAL	66.7	59.2	67.1	59.6	66.4	58.8

SOURCE: Bureau of the Census, Current Population Reports, Series P-20, No. 322 (Washington, D.C.: 1978), Tables 2, 5, and 6.

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1977

County	Seat	Prosecuting Attorney	Clerk
Alcona	Harrisville	James H. Cook, (R)	Anne C. Moore, (R)
Alger	Munising	William A. Werner, (D)	John P. Carr, (D)
Allegan	Allegan	Fred R. Hunter, III, (R)	Russell Sill, (R)
Alpena	Alpena	Theodore O. Johnson, (D)	Clara H. Noack, (R)
Antrim	Bellaire	James G. Young, (R)	Laura Dunson, (R)
Arenac	Standish	Jack W. Scully, (R)	Douglas C. Black, (R)
Baraga	L'Anse	F. Hubert Mather, (D)	Bernard J. Lambert, (D)
Barry	Hastings	Gary Holman, (R)	Norval E. Thaler, (R)
Bay	Bay City	Eugene C. Penzien, (D)	Steven Toth, (D)
Benzie	Beulah	John D. Berlin, (R)	Jean Bowers, (R)
Berrien	St. Joseph	John A. Smietanka, (R)	Forrest H. Kesterke, (R)
Branch	Coldwater	John L. Livesay, (R)	Raymond H. Ehl, (R)
Calhoun	Marshall	James Norlander, (R)	Marcus J. Gray, (D)
Cass	Cassopolis	William T. Grimmer, (R)	Kenneth M. Poe, (R)
Charlevoix	Charlevoix	Roy C. Hayes, (R)	Clarence F. Rabach, (R)
Cheboygan	Cheboygan	Michael J. Hackett, (R)	Joanne C. Spray, (D)
Chippewa	Sault Ste. Marie	Farrell E. Elliott, (R)	Judson P. Swart, (R)
Clare	Harrison	Richard S. Allen, Jr., (R)	Ruth Stanley, (R)
Clinton	St. Johns	Jon W. Newman, (R)	Ernest E. Carter, (R)
Crawford	Grayling	Thomas E. Kent, (R)	Leo E. Lovely, (R)
Delta	Escanaba	Robert E. Godbel, Jr., (R)	Michael R. Albert, (D)
Dickinson	Iron Mt.	Richard Celello, (D)	Frank Sleik, (D)
Eaton	Charlotte	Paul F. Berger, (R)	Kathryn I. Bosworth, (D)
Emmet	Petoskey	John F. Salan, (R)	Harriet L. Kilborn, (R)
Genesee	Flint	Robert F. Leonard, (D)	Michael J. Carr, (D)

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1977 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Gladwin	Gladwin	Joseph McCarthy, (R)	William H. Hall, (R)
Gogebic	Bessemer	Anders B. Tingstad, Jr., (D)	Melvin R. Peterson, (D)
Grand Traverse	Traverse City	John D. Foresman, (R)	Anita Kucera, (R)
Gratiot	Ithaca	Richard D. Gay, (R)	Eva M. Smith, (R)
Hillsdale	Hillsdale	Ronald C. Zellar, (R)	Doris June Pish, (R)
Houghton	Houghton	Sterling W. Schrock, (D)	Raymond J. Hosking, (D)
Huron	Bad Axe	Peter B. Capling, (R)	Edward A. Swackhamer, (R)
Ingham	Mason	Peter Houk (D)	Lingg Brewer, (D)
Ionia	Ionia	Lawrence P. McKaig, (R)	Phyllis Brown Laviolette, (R)
Iosco	Tawas City	Stephen H. Naegele, (R)	D. Keith Papas, (R)
Iron	Crystal Falls	Torger Omdahl, (D)	Reino Anderson, (D)
Isabella	Mt. Pleasant	Joseph Barberi, (R)	Betty Prout, (R)
Jackson	Jackson	Edward J. Grant, (R)	Jean S. Kahn, (R)
Kalamazoo	Kalamazoo	James J. Gregart, (R)	Phillip Hassing, (R)
Kalkaska	Kalkaska	Philip J. Crowley, (D)	Rina Uitvlugt, (R)
Kent	Grand Rapids	David H. Sawyer, (R)	Jack Bronkema, (R)
Keweenaw	Eagle River	Gordon J. Jaaskelainen, (D)	Ethel Ketola, (R)
Lake	Baldwin	Edward C. Duckworth, (D)	Lucinda K. Keefer, (R)
Lapeer	Lapeer	Edward B. Meth, (R)	Mary Ellen Thick, (R)
Leelanau	Leland	James R. Williams, (R)	Margaret E. Weinert, (R)
Lenawee	Adrian	Harvey A. Koselka, (R)	Patricia J. Johnston, (R)
Livingston	Howell	Frank R. Del Vero, (R)	Joseph H. Ellis (R)
Luce	Newberry	James P. Hoy, (R)	Eva C. Danielson, (R)
Mackinac	St. Ignace	Prentiss M. Brown, (D)	Arthur A. Kaminsky, (R)
Macomb	Mt. Clemens	George N. Parris, (D)	Edna Miller, (D)

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1977 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Manistee	Manistee	Dennis L. Keleher, (R)	Emily Iverson, (R)
Marquette	Marquette	Gary L. Walker, (D)	Henry A. Skewis, (D)
Mason	Ludington	Martin M. Holmes, (D)	Ivan J. Anthony, (R)
Mecosta	Big Rapids	Charles B. Woodruff, (R)	Elda H. Wells, (R)
Menominee	Menominee	Craig Rolfs, (R)	Kenneth C. Krause, (D)
Midland	Midland	Doyle A. Rowland, (R)	Ben Penner, (R)
Missaukee	Lake City	Gary C. Hoffman, (R)	Don Molitor, (R)
Monroe	Monroe	Michael W. LaBeau, (D)	Warren J. LaBeau, (D)
Montcalm	Stanton	Duane A. Carr, (R)	Nyle B. Erskin, (R)
Montmorency	Atlanta	David F. Tibbetts, (R)	M. Jeanne Clement, (R)
Muskegon	Muskegon	Gerald Warner, (D)	Margaret H. Greenwood, (R)
Newaygo	White Cloud	Terrence R. Thomas, (R)	Maxwell L. Jordan, (R)
Oakland	Pontiac	L. Brooks Patterson, (R)	Lynn D. Allen, (R)
Oceana	Hart	William F. Hanna, (R)	Elizabeth A. Field, (R)
Ogemaw	West Branch	Louis E. Traycik, (R)	Edwin D. Ostrander, (R)
Ontonagon	Ontonagon	Roy D. Gotham, (D)	Bernice M. Huotari, (D)
Osceola	Reed City	James C. Thompson, (R)	Carl L. Wyman, (R)
Oscoda	Mio	Hugo L. Burzlaff, (R)	Paul F. Starry, (R)
Otsego	Gaylord	John Murray Dennany, (R)	Theodore W. Werts, (R)
Ottawa	Grand Haven	Wesley J. Nykamp, (R)	Harris Nieusma, (R)
Presque Isle	Rodgers City	Larry R. Farmer, (D)	Ruth M. Doyle, (D)
Roscommon	Roscommon	Michael J. Baumgartner, (D)	Robert W. Smith, (R)
Saginaw	Saginaw	Robert L. Kaczmarek, (R)	Gladys June Ormsby, (D)
St. Clair	Port Huron	Peter E. Deegan, (R)	Howard L. Muzzy, (R)
St. Joseph	Centreville	James Noecker, (R)	Beverly J. Burnham, (R)

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1977 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Sanilac	Sandusky	J. Anthony Sykora, (R)	Lawrence R. Smith, (R)
Schoolcraft	Manistique	John Thompson, (D)	Ferdinand Lesica, (D)
Shiawassee	Corunna	Gerald D. Lostracco, (R)	Elna M. Thatcher, (R)
Tuscola	Caro	Patrick R. Joslyn, (R)	Elsie Hicks, (R)
Van Buren	Paw Paw	Ward "Steve" Hamlin, (R)	C. E. MacDonald, (R)
Washtenaw	Ann Arbor	William F. Delhey, (R)	Robert M. Harrison, (R)
Wayne	Detroit	William L. Cahalan, (D)	James. R. Killeen, (D)
Wexford	Cadillac	Burton A. Hines, Jr., (R)	Keith G. Knudsen, (R)

SOURCE: Michigan Department of Management and Budget, County Officers Sheet 1977-78 (Lansing: 1977).

(R): Republican

(D): Democrat

TABLE IX-4. MICHIGAN REPRESENTATION IN THE 95TH CONGRESS, BY DISTRICT: 1979-1980

District	Representative	Party	District	Representative	Party
1	John Conyers, Jr.	(D)	11	Robert W. Davis	(R)
2	Carl D. Pursell	(R)	12	David E. Bonior	(D)
3	Howard Wolpe	(D)	13	Charles C. Diggs, Jr.	(D)
4	David A. Stockman	(R)	14	Lucien N. Nedzi	(D)
5	Harold S. Sawyer	(R)	15	William D. Ford	(D)
6	M. Robert Carr	(D)	16	John A. Dingell	(D)
7	Dale E. Kildee	(D)	17	William M. Brodhead	(D)
8	Bob Traxler	(D)	18	James J. Blanchard	(D)
9	Guy A. Vander Jagt	(R)	19	William S. Broomfield	(R)
10	Don Albosta	(D)			

SOURCE: Michigan Department of Management and Budget, special release.

(R): Republican

(D): Democrat

TABLE IX-5. MICHIGAN REPRESENTATION IN THE STATE SENATE, BY DISTRICT: 1979-1980

District	State Senator	Party	District	State Senator	Party
1	John Kelly	(D)	20	Harry A. DeMaso	(R)
2	John C. Hertel	(D)	21	John A. Welborn	(R)
3	Basil W. Brown	(D)	22	Harry Gast Jr.	(R)
4	David S. Holmes, Jr.	(D)	23	Edward Fredricks	(R)
5	Jackie Vaughn III	(D)	24	William A. Sederberg	(R)
6	Michael J. O'Brien	(D)	25	Gary G. Corbin	(D)
7	Jack Faxon	(D)	26	Robert J. DiMello	(D)
8	Donald E. Bishop	(R)	27	Arthur J. Miller	(D)
9	Thomas Guastello	(D)	28	Alvin J. DeGrow	(R)
10	George Hart	(D)	29	Harold J. Scott	(D)
11	James DeSana	(D)	30	Richard J. Allen	(R)
12	David A. Plawecki	(D)	31	Robert VanderLaan	(R)
13	William Faust	(D)	32	Steven V. Monsma	(D)
14	R. Robert Geake	(R)	33	Phil Arthurhultz	(D)
15	Doug Ross	(D)	34	Jerome T. Hart	(D)
16	Bill Huffman	(D)	35	Robert Young	(R)
17	Kerry Kammer	(D)	36	John M. Engler	(R)
18	Edward C. Pierce	(D)	37	Mitch Irwin	(D)
19	John S. Mowat Jr.	(R)	38	Joseph S. Mack	(D)

SOURCE: Michigan Department of Management and Budget, special release.

(R): Republican

(D): Democrat

TABLE IX-6. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1979-1980

District	Representative	Party	District	Representative	Party
1	Michael J. Bennane	(D)	25	Dennis M. Dutko	(D)
2	Jack E. Legel	(D)	26	Kenneth Debeaussaert	(D)
3	Casmer P. Ogonowski	(D)	27	Jeffrey D. Padden	(D)
4	George Cushingberry, Jr.	(D)	28	Thomas J. Anderson	(D)
5	George Montgomery	(D)	29	Alfred A. Sheridan	(D)
6	Morris W. Hood, Jr.	(D)	30	Joyce Symons	(D)
7	Raymond W. Hood	(D)	31	Lucille H. McCollough	(D)
8	Edward Vaughn	(D)	32	Richard A. Young	(D)
9	Ethel Terrell	(D)	33	William R. Keith	(D)
10	Virgil C. Smith, Jr.	(D)	34	John Bennett	(D)
11	Thaddeus C. Stopczynski	(D)	35	Jack Edwin Kirksey	(R)
12	Dennis M. Hertel	(D)	36	Robert C. Law	(R)
13	William R. Bryant, Jr.	(R)	37	Thomas H. Brown	(D)
14	William A. Ryan	(D)	38	Edward E. Mahalak	(D)
15	Joseph F. Young	(D)	39	Raymond C. Kehres	(D)
16	Matthew McNeely	(D)	40	James E. Hadden	(R)
17	Frank J. Wierzbicki	(D)	41	Nick Smith	(R)
18	Carolyn C. Kilpatrick	(D)	42	Mark D. Siljander	(R)
19	Stephen Stopczynski	(D)	43	Carl F. Gnodtke	(R)
20	Juanita Watkins	(D)	44	Lad S. Stacey	(R)
21	Barbara-Rose Collins	(D)	45	Bela E. Kennedy	(R)
22	Gary M. Owne	(D)	46	Mary C. Brown	(D)
23	Mary Keith Ballantine	(R)	47	Robert Welborn	(R)
24	Richard D. Fessler	(R)	48	Richard G. Itzpatrick	(D)

TABLE IX-6. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1979-1980 (cont.)

District	Representative	Party	District	Representative	Party
49	Everitt F. Lincoln	(R)	73	Leo R. Laconde	(D)
50	Michael J. Griffin	(D)	74	John M. Maynard	(D)
51	Frederick Dillingham	(R)	75	David H. Evans	(D)
52	Roy Smith	(R)	76	William L. Jowett	(R)
53	Perry Bullard	(D)	77	Quincy Hoffman	(R)
54	Paul Hillegonds	(R)	78	Larry E. Burkhalter	(D)
55	Donald H. Gilmer	(R)	79	Joe Conroy	(D)
56	Ernest Nash	(R)	80	Thomas E. Scott	(D)
57	David C. Hollister	(D)	81	Mark Clodfelter	(D)
58	Debbie Stabenow	(D)	82	Bobby D. Crim	(D)
59	H. Lynn Jondahl	(D)	83	Charles L. Mueller	(R)
60	Claude A. Trim	(D)	84	Loren S. Armbruster	(R)
61	Alice W. Tomboulian	(D)	85	James E. O'Neill, Jr.	(D)
62	Charlie J. Harrison, Jr.	(D)	86	Lewis N Dodak	(D)
63	Ruth B. McNamee	(R)	87	Francis R. Spaniola	(D)
64	Wilbur V. Brotherton	(R)	88	Alan L. Cropsey	(R)
65	James E. Defebaugh	(R)	89	Gary L. Randall	(R)
66	Gary Vanek	(D)	90	Martin D. Buth	(R)
67	Joseph Forbes	(D)	91	Paul Henry	(R)
68	David L. Campbell	(R)	92	Thomas C. Mathieu	(D)
69	Dana F. Wilson	(D)	93	Draw Allbritten	(R)
70	John T. Kelsey	(D)	94	Jelt Sietsema	(D)
71	Sal Rocca	(D)	95	James K. Dressel	(R)
72	Nick Ciaramitaro	(D)	96	Gerrit Hasper	(D)

TABLE IX-6. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1979-1980 (cont.)

District	Representative	Party	District	Representative	Party
97	Edgar A. Geerlings	(R)	104	Connie Binsfeld	(R)
98	Jeff Dongvillo	(D)	105	Tom Alley	(D)
99	Donald Van Singel	(R)	106	Steven Andrews	(R)
100	J. Michael Busch	(R)	107	Charles H. Varnum	(R)
101	James A. Barcia	(D)	108	Dominic J. Jacobetti	(D)
102	Louis K. Cramton	(R)	109	Jack L. Gingrass	(D)
103	Ralph Ostling	(R)	110	Russell Hellman	(D)

SOURCE: Michigan Department of Management and Budget, special release.

(R): Republican

(D): Democrat

TABLE IX-7. MICHIGAN REPRESENTATION IN CONGRESS AND THE STATE LEGISLATURE, BY DISTRICT AND COUNTY: 1977

County	Congressional district	State Senate district	State Representative district
Alcona	11	37	105
Alger	11	37	107-109
		38	
Allegan	9	23	45
			54
			55
Alpena	11	37	106
Antrim	10	36	103
	11	37	106
Arenac	8	35	105
	10		
Baraga	11	38	108
			110
Barry	3	20	45
	5	23	55
		30	
		31	
Bay	8	34	86
	10	35	101
			102
			105
Benzie	9	36	104
	10		
Berrien	4	22	43-45
Branch	4	20	41
Calhoun	3	20	48
	4	30	49
Cass	4	21	42
		22	44
Charlevoix	11	37	103
			106
Cheboygan	11	37	106
			107
Chippewa	11	37	107
Clare	10	36	89
			103
Clinton	3	30	56
	5		87
	6		88
	10		
Crawford	10	37	103
	11		
Delta	11	37	107
		38	109
Dickinson	11	38	109
Eaton	3	30	56
	5	31	58
Emmet	11	37	107
Genesee	7	25	79-84
		29	87

TABLE IX-7. MICHIGAN REPRESENTATION IN CONGRESS AND THE STATE LEGISLATURE, BY DISTRICT AND COUNTY: 1977 (cont.)

County	Congressional district	State Senate district	State Representative district
Gladwin	10	35	105
Gogebic	11	38	110
Grand Traverse	10	36	103
			104
Gratiot	10	30	88
		35	89
			100
Hillsdale	3	19	40
	4	20	41
Houghton	11	38	108
			110
Huron	8	28	77
Ingham	6	24	23
	8	30	51
			57-59
Ionia	3	31	56
	5		88
Iosco	11	35	105
		37	
Iron	11	38	108
			110
Isabella	10	36	89
			99
			103
Jackson	3	18-20	23
	6	30	49
			50
Kalamazoo	3	20	46
		21	47
		23	55

County	Congressional district	State Senate district	State Representative district
Kalkaska	10	36	103
		37	
Kent	3	23	90-95
	5	31	
		32	
Keewenaw	11	38	110
Lake	9	33	98
		36	
Lapeer	8	9	77
		28	78
Leelanau	9	36	104
Lenawee	4	18	40
		19	41
Livingston	6	17	51
	19	18	
Luce	11	37	107
Mackinac	11	37	107
Macomb	12	1	25
	14	9	26
	18	26-28	70-75
			78
Manistee	9	33	98
			104
Marquette	11	38	108
			109
Mason	9	33	98
Mecosta	10	36	99
Menominee	11	38	109

TABLE IX-7. MICHIGAN REPRESENTATION IN CONGRESS AND THE STATE LEGISLATURE, BY DISTRICT AND COUNTY: 1977 (cont.)

County	Congressional district	State Senate district	State Representative district	County	Congressional district	State Senate district	State Representative district
Midland	10	35	102	Roscommon	10	35	103
			105				105
Missaukee	10	36	103	Saginaw	7	34	84-86
Monroe	2	11	38		8	35	100
	15		39		10		
			52				
Montcalm	5	30	88	St. Clair	12	9	26
	10	31	89			28	76-78
		36	99				
Montmorency	11	37	105	St. Joseph	3	20	41
			106		4	21	42
Muskegon	9	33	96-98	Sanilac	8	28	77
					12		
Newaygo	9	33	99	Schoolcraft	11	37	107
		36				38	
Oakland	12	8	24	Shiawassee	7	25	87
	17-19	15-17	60-69		10	30	88
			71				
Oceana	9	33	98	Tuscola	7	28	84
					8		
Ogemaw	10	35	105	Van Buren	4	21-23	42
Ontonagon	11	38	110				45
							54
Osceola	10	36	99	Wastenaw	2	11	22
			103		6	13	23
Oscoda	11	37	105			18	52
Otsego	11	37	106			19	53
Ottawa	9	23	54	Wayne	1	1-7	1-22
			95		2	10-14	27-38
			97		13-17	26	52
Presque Isle	11	37	106	Wexford	9	36	98
					10		104

SOURCE: Michigan Department of Management and Budget, Michigan Manual 1975-1976 (Lansing: 1976), pp. 228-33.

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY

County	City	Year incorporated	Village	Year incorporated
Alcona	*Harrisville	1905	Lincoln	1907
Alger	*Munising	1915	Chatham	1964
Allegan[a]	*Allegan	1907	Douglas	1870
	Fennville	1961	Hopkins	1921
	Otsego	1918	Martin	1947
	Plainwell	1934	Saugatuck	1868
	Wayland	1966		
Alpena	*Alpena	1871		
Antrim			*Bellaire	1891
			Central Lake	1895
			Elk Rapids	1900
			Ellsworth	1939
			Mancelona	1889
Arenac	Au Gres	1905	Sterling	1917
	Omer	1903	Turner	1916
	*Standish	1904	Twining	1903
Baraga			Baraga	1891
			*L'Anse	1873
Barry	*Hastings	1871	Freeport	1907
			Middleville	1867
			Nashville	1869
			Woodland	1895
Bay[b]	Auburn	1948		
	*Bay City	1865		
	Essexville	1934		
	Pinconning	1931		
Benzie	Frankfort	1935	Benzonia	1891
			*Beulah	1932
			Elberta	1894
			Honor	1915
			Lake Ann	1892
			Thompsonville	1892
Berrien	Benton Harbor	1891	Baroda	1907
	Bridgeman	1949	Berrien Springs	1867
	Buchanan	1929	Eau Claire	1891
	Coloma	1942	Galien	1879
	New Buffalo	1965	Grand Beach	1934
	Niles	1859	Michiana	1946
	*St. Joseph	1891	Shoreham	1930
	Watervliet	1925	Stevensville	1893
			Three Oaks	1867
Branch	Bronson	1934	Quincy	1858
	*Coldwater	1861	Sherwood	1887
			Union City[c]	1869
Calhoun[c]	Albion	1885	Athens	1895
	Battle Creek	1859	Burlington	1869
	*Marshall	1859	Homer	1871
	Springfield	1952	Tekonsha	1877
Cass	Dowagiac	1877	*Cassopolis	1863
			Edwardsburg	1912
			Marcellus	1879
			Vandalia	1875

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Charlevoix	Boyne City	1907	Boyne Falls	1893
	*Charlevoix	1905		
	East Jordan	1911		
Cheboygan	*Cheboygan	1889	Mackinaw City[d]	1883
			Wolverine	1903
Chippewa	*Sault Ste. Marie	1887	Detour	1899
Clare	Clare	1891	Farwell	1879
	*Harrison	1891		
Clinton[e]	De Witt	1965	Eagle	1887
	*St. Johns	1904	Elsie	1885
			Fowler	1885
			Maple Rapids	1881
			Ovid	1869
			Westphalia	1883
Crawford	*Grayling	1935		
Delta	*Escanaba	1883	Garden	1886
	Gladstone	1889		
Dickinson	*Iron Mountain	1889		
	Kingsford	1947		
	Norway	1891		
Eaton[e]	*Charlotte	1871	Bellevue	1867
	Eaton Rapids	1881	Dimondale	1906
	Grand Ledge	1893	Mulliken	1903
	Olivet	1958	Sunfield	1899
	Potterville	1963	Vermontville	1871
Emmet[d]	Harbor Springs	1932	Alanson	1905
	*Petoskey	1895	Pellston	1907
Genesee[f]	Burton	1972	Gaines	1875
	Clio	1928	Goodrich	1957
	Davison	1939	Linden	1871
	Fenton	1964	Montrose	1899
	*Flint	1855	Otisville	1877
	Flushing	1864		
	Grand Blanc	1930		
	Mount Morris	1930		
	Swartz Creek	1959		
Gladwin	Beaverton	1903		
	*Gladwin	1893		
Gogebic	*Bessemer	1889		
	Ironwood	1889		
	Wakefield	1919		
Grand Traverse	*Traverse City	1895	Fife Lake	1889
			Kingsley	1890
Gratiot	Alma	1905	Ashley	1887
	*Ithaca	1961	Breckenridge	1908
	St. Louis	1891	Perrinton	1891
Hillsdale	*Hillsdale	1869	Allen	1951
	Litchfield	1970	Camden	1899
	Reading	1934	Jonesville	1855
			Montgomery	1906
			North Adams	1881
			Waldron	1905

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Houghton	Hancock	1903	Calumet	1875
	*Houghton	1970	Copper City	1917
			Lake Linden	1885
			Laurium	1889
			South Range	1906
Huron	*Bad Axe	1905	Caseville	1898
	Harbor Beach	1910	Elkton	1897
			Kinde	1903
			Owendale	1905
			Pigeon	1902
			Port Austin	1887
			Port Hope	1887
			Sebewaing	1879
			Ubly	1896
Ingham	East Lansing	1907	Dansville	1867
	Lansing[e]	1859	Stockbridge	1889
	Leslie	1968	Webberville	1879
	*Mason	1875		
	Williamston	1945		
Ionia	Belding	1893	Clarksville	1925
	*Ionia	1873	Hubbardston[e]	1867
	Portland	1969	Lake Odessa	1889
			Lyons	1859
			Muir	1871
			Pewamo	1871
			Saranac	1869
Iosco	East Tawas	1895		
	*Tawas City	1895		
	Whittemore	1907		
Iron	Caspian	1950	Alpha	1914
	*Crystal Falls	1899	Mineral Hills	1919
	Gaastra	1949		
	Iron River	1926		
	Stambaugh	1923		
Isabella	*Mt. Pleasant	1889	Rosebush	1968
			Shepherd	1889
Jackson[g]	*Jackson	1857	Brooklyn	1879
			Concord	1871
			Grass Lake	1871
			Hanover	1885
			Parma	1864
			Springport	1883
Kalamazoo	Galesburg	1931	Augusta	1869
	*Kalamazoo	1883	Climax	1899
	Parchment	1939	Richland	1871
	Portage	1963	Schoolcraft	1866
			Vicksburg	1871
Kalkaska			*Kalkaska	1887
Kent	Cedar Springs	1959	Caledonia	1888
	East Grand Rapids	1927	Casnovia[h]	1875

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Kent (cont.)	*Grand Rapids	1850	Kent City	1908
	Grandville	1933	Sand Lake	1878
	Kentwood	1967	Sparta	1883
	Lowell	1960		
	Rockford	1935		
	Walker	1962		
	Wyoming	1959		
Keweenaw*			Ahmeek	1909
Lake			*Baldwin	1887
			Luther	1893
Lapeer[i]	Imlay City	1970	Almont	1855
	*Lapeer	1869	Clifford	1891
			Columbiaville	1879
			Dryden	1887
			Metamora	1885
			North Branch	1881
			Otter Lake[f]	1883
Leelanau*			Empire	1895
			Northport	1903
			Suttons Bay	1898
Lenawee	*Adrian	1853	Addison	1893
	Hudson	1893	Blissfield	1875
	Morenci	1934	Britton	1896
	Tecumseh	1954	Cement City[g]	1953
			Clayton	1870
			Clinton	1838
			Deerfield	1873
			Onsted	1907
Livingston	Brighton	1928	Fowlerville	1871
	*Howell	1914	Pinkney	1883
Luce			*Newberry	1885
Mackinac	Mackinac Island	1899		
	*St. Ignace	1883		
Macomb[j]	Center Line	1936	Armada	1867
	East Detroit	1929	New Haven	1869
	Fraser	1956	Romeo	1838
	Memphis[k]	1953		
	*Mount Clemens	1879		
	New Baltimore	1931		
	Richmond	1966		
	Roseville	1958		
	St. Clair Shores	1951		
	Sterling Heights	1968		
	Utica	1937		
	Warren	1957		
Manistee	*Manistee	1869	Bear Lake	1893
			Copemish	1891
			East Lake	1913
			Kaleva	1948
			Onekama	1891
Marquette	Ishpeming	1873		
	*Marquette	1871		
	Negaunee	1873		

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Mason	*Ludington	1873	Custer	1895
	Scottville	1907	Fountain	1913
			Freesoil	1915
Mecosta	*Big Rapids	1869	Barryton	1907
			Mecosta	1883
			Morley	1870
			Stanwood	1907
Menominee	*Menominee	1883	Daggett	1902
	Stephenson	1869	Powers	1915
Midland	Coleman[b]	1905	Sanford	1963
	*Midland[b]	1887		
Missaukee	*Lake City	1932		
	McBain	1907		
Monroe[l]	Luna Pier	1963	Carleton	1911
	*Monroe	1837	Dundee	1855
	Petersburg	1969	Estral Beach	1926
			Maybee	1899
			South Rockwood	1955
Montcalm	Carson City	1960	Edmore	1879
	Greenville	1871	Howard City	1873
	*Stanton	1881	Lakeview	1881
			McBride	1883
			Pierson	1873
			Sheridan	1877
Montmorency*			Hillman	1891
Muskegon[h]	Montague	1935	Fruitport	1891
	Muskegon	1869	Lakewood Club	1967
	Muskegon Heights	1903	Ravenna	1922
	North Muskegon	1891		
	Norton Shores	1968		
	Roosevelt Park	1946		
	Whitehall	1943		
Newaygo[dh]	Fremont	1911		
	Grant	1971		
	Newaygo	1968		
	*White Cloud	1950		
Oakland	Berkley	1932	Beverly Hills	1958
	Birmingham	1933	Bingham Farms	1955
	Bloomfield Hills	1933	Clarkston	1884
	Clawson	1940	Franklin	1954
	Farmington	1926	Holly	1865
	Farmington Hills	1973	Lake Angelus	1930
	Ferndale	1927	Lake Orion	1859
	Hazel Park	1942	Leonard	1889
	Huntington Woods	1932	Milford	1869
	Keego Harbor	1955	Ortonville	1902
	Lathrup Village	1953	Oxford	1876
	Madison Heights	1955	Wolverine Lake	1954
	Northville[j]	1955		
	Novi	1969		
	Oak Park	1945		
	Orchard Lake Village	1964		
	Pleasant Ridge	1928		

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Oakland (cont.)	*Pontiac	1861		
	Rochester	1967		
	Royal Oak	1921		
	Southfield	1958		
	South Lyon	1930		
	Sylvan Lake	1947		
	Troy	1955		
	Walled Lake	1954		
	Wixom	1958		
Oceana	*Hart	1946	Hesperia[m]	1883
			New Era	1948
			Pentwater	1867
			Rothbury	1966
			Shelby	1885
			Walkerville	1908
Ogemaw	Rose City	1905	Prescott	1947
	*West Branch	1905		
Ontonagon			*Ontonagon	1885
Osceola	Evart	1938	Hersey	1875
	*Reed City	1932	LeRoy	1883
			Marion	1889
			Tustin	1893
Oscoda[n]				
Otsego	*Gaylord	1922	Vanderbilt	1901
Ottawa	Coopersville	1967	Spring Lake	1869
	Ferrysburg	1963		
	*Grand Haven	1867		
	Holland[a]	1867		
	Hudsonville	1857		
	Zeeland	1907		
Presque Isle	Onaway	1903	Millersburg	1901
	*Rogers City	1945	Posen	1907
Roscommon			*Roscommon	1882
Saginaw	Frankenmuth	1959	Birch Run	1955
	*Saginaw	1857	Chesaning	1869
	Zilwaukee	1964	Merrill	1889
			Oakley	1887
			St. Charles	1874
St. Clair[k]	Algonac	1966	Capac	1873
	Marine City	1887	Emmet	1883
	Marysville	1924		
	*Port Huron	1857		
	St. Clair	1858		
	Yale	1905		
St. Joseph	Sturgis	1895	Burr Oak	1857
	Three Rivers	1895	*Centreville	1837
			Colon	1904
			Constantine	1837
			Mendon	1875
			White Pigeon	1837
Sanilac	Brown City[i]	1907	Applegate	1903
	Croswell	1905	Carsonville	1887
	*Sandusky	1905	Deckerville	1893

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Sanilac (cont.)			Forestville	1895
			Lexington	1855
			Marlette	1881
			Melvin	1907
			Minden	1882
			Peck	1903
			Port Sanilac	1877
Schoolcraft	*Manistique	1901		
Shiawassee	*Corunna	1869	Bancroft	1883
	Durand	1933	Byron	1873
	Laingsburg	1951	Lennon[f]	1973
	Owosso	1859	Morrice	1884
	Perry	1964	New Lathrop	1947
			Vernon	1871
*Tuscola	Vassar	1945	Akron	1911
			Caro	1871
			Cass City	1883
			Fairgrove	1901
			Gagetown	1887
			Kingston	1893
			Mayville	1887
			Millington	1877
			Reese	1887
			Unionville	1879
Van Buren	Bangor	1968	Bloomingdale	1881
	Gobles	1957	Breedsville	1883
	Hartford	1964	Decatur	1861
	South Haven	1902	Lawrence	1869
			Lawton	1858
			Mattawan	1960
			*Paw Paw	1859
Washtenaw	*Ann Arbor	1851	Barton Hills	1973
	Milan[i]	1967	Chelsea	1864
	Saline	1931	Dexter	1855
	Ypsilanti	1858	Manchester	1867
Wayne[j]	Allen Park	1957	Grosse Pointe Shores[j]	1911
	Belleville	1946		
	Dearborn	1927		
	Dearborn Heights	1963		
	*Detroit	1806		
	Ecorse	1942		
	Flat Rock	1965		
	Garden Ctiy	1933		
	Gibraltar	1961		
	Grosse Pointe	1934		
	Grosse Pointe Farms	1949		
	Grosse Pointe Park	1950		
	Grosse Pointe Woods	1950		
	Hamtramck	1921		
	Harper Woods	1951		
	Highland Park	1918		
	Inkster	1964		
	Lincoln Park	1925		

TABLE IX-8. CITIES AND VILLAGES IN MICHIGAN, AND DATES OF INCORPORATION, BY COUNTY (cont.)

County	City	Year incorporated	Village	Year incorporated
Wayne (cont.)	Livonia	1950		
	Melvindale	1933		
	Plymouth	1932		
	River Rouge	1922		
	Riverview	1959		
	Rockwood	1964		
	Romulus	1970		
	Southgate	1958		
	Taylor	1968		
	Trenton	1957		
	Wayne	1960		
	Westland	1966		
	Woodhaven	1965		
	Wyandotte	1867		
Wexford	*Cadillac	1877	Buckley	1907
	Manton	1924	Harrietta	1891
			Mesick	1901

SOURCE: Michigan Department of Management and Budget, Michigan Manual 1975-1976 (Lansing: 1976), pp. 392-430.

NOTE: *Indicates county seat except for Keweenaw, Leelanau, Montmorency, and Oscoda counties. In Keweenaw, Eagle River, an unincorporated place, is the county seat. In Leelanau, Leland, an unincorporated place, is the county seat. In Montmorency, Atlanta, an unincorporated place, is the county seat. In Oscoda, Mio, an unincorporated place, is the county seat.

a. Holland lies in Ottawa and Allegan counties.

b. Midland lies in Midland and Bay counties.

c. Union City lies in Branch and Calhoun counties.

d. Mackinaw City lies in Cheboygan and Emmet counties.

e. Hubbardston lies in Clinton and Ionia counties; Lansing extends but has no population in Clinton County. Lansing has population in Ingham and Eaton counties only.

f. Lennon lies in Shiawassee and Genesee counties; Otter Lake lies in Lapeer and Genesee counties.

g. Cement City lies in Lenawee and Jackson counties.

h. Casnovia lies in Kent and Muskegon counties.

i. Brown City lies in Sanilac and Lapeer counties.

j. Grosse Pointe Shores lies in Wayne and Macomb counties; Northville lies in Oakland and Wayne counties.

k. Memphis lies in Macomb and St. Clair counties.

l. Milan lies in Washtenaw and Monroe counties.

m. Hesperia lies in Oceana and Newaygo counties.

n. There are no cities or villages in Oscoda County. Mio is the county seat.

TABLE IX-9. GUBERNATORIAL VOTE IN MICHIGAN: 1920-1978

Year	Total	Republican	Democratic	Other
1920	1,058,539	703,180	310,566	44,793
1922	583,661	356,933	218,252	8,476
1924	1,160,918	799,225	343,577	18,116
1926	630,752	399,564	227,155	4,033
1928	1,374,341	961,179	404,546	8,616
1930	850,892	483,990	357,664	9,238
1932	1,616,262	696,935	887,672	31,655
1934	1,258,925	659,743	557,044	22,138
1936	1,749,769	843,855	892,774	13,140
1938	1,605,241	847,245	753,752	4,244
1940	2,030,069	945,784	1,077,065	7,220
1942	1,226,774	645,335	573,314	8,125
1944	2,210,246	1,208,859	989,307	12,080
1946	1,665,475	1,003,878	644,540	17,057
1948	2,113,122	964,810	1,128,664	19,648
1950	1,879,382	933,998	935,152	10,232
1952	2,865,980	1,423,275	1,431,893	10,812
1954	2,187,027	963,300	1,216,308	7,419
1956	3,049,651	1,376,376	1,666,689	6,586
1958	2,312,184	1,078,089	1,225,533	8,562
1960	3,281,536	1,602,022	1,669,179	10,335
1962	2,764,839	1,420,086	1,339,513	5,240
1964	3,158,102	1,764,355	1,381,442	12,305
1966	2,461,909	1,490,430	963,383	8,096
1970	2,656,162	1,339,047	1,294,638	22,477
1974	2,657,017	1,356,865	1,242,247	57,905
1978	2,867,212	1,628,485	1,237,256	1,471

SOURCE: Michigan Department of Management and Budget, Michigan Manual 1975-1976 (Lansing: biennially), p. 546 (1975-1976), similar documents for earlier years, and special release.

TABLE IX-12. PRESIDENTAL VOTE IN MICHIGAN: 1920-1976

Year	Republican	Democratic	Other	Total
1920	762,865	233,450	52,096	1,048,411
1924	874,631	152,359	133,429	1,160,419
1928	965,396	396,762	9,924	1,372,082
1932	739,894	871,700	53,171	1,664,765
1936	699,733	1,016,794	88,571	1,805,098
1940	1,039,917	1,032,991	13,021	2,085,929
1944	1,084,423	1,106,899	13,901	2,205,223
1948	1,038,595	1,003,448	67,566	2,109,609
1952	1,551,529	1,230,657	16,406	2,798,592
1956	1,713,647	1,359,898	6,923	3,080,468
1960	1,620,428	1,687,269	10,400	3,318,097
1964	1,060,152	2,136,615	6,335	3,203,102
1968	1,370,665	1,593,082	342,503	3,306,250
1972	1,961,721	1,459,435	68,571	3,489,727
1976	1,893,742	1,696,714	61,134	3,651,590

SOURCES: Michigan Department of Management and Budget, Michigan Manual, 1975-1976 and 1961-1962 (Lansing: biennially), p. 122 (1975-1976); and Michigan Secretary of State, special release (1976 data).

TABLE IX-10. VOTES CAST FOR GOVERNOR AND SECRETARY OF STATE IN MICHIGAN, BY COUNTY: 7 NOVEMBER 1978

County	Governor				Secretary of State			
	Democratic	Republican	Scattering	Total	Democratic	Republican	Scattering	Total
Alcona	1,870	1,868	3	3,741	2,074	1,459	2	3,535
Alger	2,209	1,237	0	3,446	2,466	909	0	3,375
Allegan	10,958	12,181	4	23,143	11,713	10,980	3	22,696
Alpena	5,454	5,501	0	10,955	7,232	3,429	0	10,661
Antrim	2,725	3,656	0	6,381	3,616	2,531	0	6,147
Arenac	2,379	2,272	1	4,652	2,847	1,605	0	4,452
Baraga	1,534	1,396	0	2,930	1,847	940	0	2,787
Barry	6,889	8,377	13	15,279	8,906	6,069	9	14,984
Bay	22,915	18,762	0	41,677	28,165	12,321	0	40,986
Benzie	1,676	2,704	4	4,384	2,427	1,781	1	4,209
Berrien	16,694	29,577	3	46,274	19,923	24,965	3	44,891
Branch	4,651	6,968	0	11,619	6,982	4,335	1	11,318
Calhoun	20,038	23,998	19	44,055	28,527	14,411	14	42,952
Cass	4,941	7,572	2	12,515	6,202	5,916	1	12,119
Charlevoix	3,550	3,883	3	7,436	4,639	2,559	0	7,198
Cheboygan	3,558	3,688	0	7,246	4,467	2,470	0	6,937
Chippewa	4,686	5,489	0	10,175	6,191	3,650	0	9,841
Clare	3,999	3,729	3	7,731	4,772	2,755	0	7,527
Clinton	7,420	11,026	13	18,459	10,189	7,791	1	17,981
Crawford	1,621	1,834	0	3,455	2,227	1,099	0	3,326
Delta	7,304	5,693	1	12,998	8,476	4,096	0	12,566
Dickinson	5,053	4,595	1	9,649	5,689	3,305	0	8,994
Eaton	10,618	19,015	0	29,633	16,888	12,090	0	28,978
Emmet	3,437	4,995	0	8,432	5,282	2,970	0	8,252
Genesee	64,292	65,936	18	130,246	91,379	38,792	0	130,168

TABLE IX-10. VOTES CAST FOR GOVERNOR AND SECRETARY OF STATE IN MICHIGAN, BY COUNTY: 7 NOVEMBER 1978 (cont.)

County	Governor				Secretary of State			
	Democratic	Republican	Scattering	Total	Democratic	Republican	Scattering	Total
Gladwin	3,371	2,894	0	6,265	3,876	2,153	0	6,029
Gogebic	4,966	3,344	0	8,310	5,876	2,121	0	7,997
Grand Traverse	6,042	11,990	8	18,040	9,981	7,614	5	17,600
Gratiot	4,670	7,215	4	11,889	6,531	4,994	0	11,525
Hillsdale	4,559	7,372	0	11,931	6,569	4,953	0	11,522
Houghton	5,698	6,729	0	12,427	8,017	3,973	0	11,990
Huron	5,349	7,444	0	12,793	6,607	5,591	0	12,198
Ingham	29,356	68,334	256	97,946	64,077	32,330	4	96,411
Ionia	7,311	8,500	3	15,814	9,082	6,131	0	15,213
Iosco	3,858	4,423	9	8,290	4,804	3,185	3	7,992
Iron	3,488	2,563	0	6,051	3,891	1,783	0	5,674
Isabella	6,054	9,030	16	15,100	9,495	5,247	0	14,742
Jackson	20,513	27,474	34	48,021	29,155	18,036	7	47,198
Kalamazoo	24,220	44,825	42	69,087	41,381	25,985	2	67,368
Kalkaska	1,906	1,642	3	3,551	2,286	1,163	2	3,451
Kent	62,153	85,292	82	147,527	84,919	59,945	19	144,883
Keweenaw	587	546	0	1,133	679	376	0	1,055
Lake	1,753	1,148	3	2,904	1,888	955	1	2,844
Lapeer	8,198	10,853	0	19,051	11,676	7,323	0	1,899
Leelanau	2,296	3,882	4	6,182	3,354	2,634	2	5,988
Lenawee	10,936	14,784	14	25,734	15,025	10,005	3	25,033
Livingston	9,292	19,011	5	28,308	16,734	10,959	1	27,694
Luce	799	1,168	0	1,967	1,028	739	0	1,767
Mackinac	2,016	2,328	0	4,344	2,567	1,621	0	4,188
Macomb	92,241	119,334	43	211,618	137,462	63,701	5	201,168

TABLE IX-10. VOTES CAST FOR GOVERNOR AND SECRETARY OF STATE IN MICHIGAN, BY COUNTY: 7 NOVEMBER 1978 (cont.)

County	Governor				Secretary of State			
	Democratic	Republican	Scattering	Total	Democratic	Republican	Scattering	Total
Manistee	3,712	4,263	0	7,975	4,928	2,806	0	7,734
Marquette	10,487	10,201	0	21,048	14,219	6,454	0	20,673
Mason	4,065	5,323	3	9,391	5,695	3,562	0	9,257
Mecosta	4,721	6,151	0	10,872	6,429	4,068	0	10,497
Menominee	4,674	3,565	0	8,239	5,200	2,730	0	7,930
Midland	9,346	16,886	19	26,251	15,940	10,167	4	26,111
Missaukee	2,313	1,765	7	4,085	2,359	1,617	5	3,981
Monroe	15,750	16,933	7	32,690	21,309	10,278	1	31,588
Montcalm	6,167	7,782	3	13,952	7,878	5,425	0	13,303
Montmorency	1,572	1,473	0	3,045	1,845	1,077	0	2,922
Muskegon	25,141	27,960	3	53,104	35,984	16,603	3	52,590
Newaygo	5,342	6,061	0	11,403	6,337	4,774	0	11,111
Oakland	107,830	225,870	115	333,815	195,886	131,275	6	327,167
Oceana	3,549	3,711	3	7,263	4,478	2,664	1	7,143
Ogemaw	3,549	2,545	6	6,100	3,892	1,978	0	5,870
Ontonagon	2,534	1,828	0	4,362	2,905	1,239	0	4,144
Osceola	2,863	3,113	36	6,012	3,356	2,451	27	5,834
Oscoda	1,996	610	0	2,606	1,602	874	0	2,475
Otsego	2,253	3,151	0	5,404	3,388	1,812	0	5,200
Ottawa	21,132	32,271	9	53,412	23,605	28,858	2	52,465
Presque Isle	3,165	2,785	6	5,956	4,115	1,623	0	5,738
Roscommon	3,607	3,604	0	7,211	4,419	2,628	0	7,047
Saginaw	31,448	35,491	4	66,943	42,130	23,840	3	65,973
St. Clair	17,640	23,287	0	40,927	26,011	14,007	0	40,018
St. Joseph	5,013	9,083	10	14,106	6,500	6,985	10	13,495

TABLE IX-10. VOTES CAST FOR GOVERNOR AND SECRETARY OF STATE IN MICHIGAN, BY COUNTY: 7 NOVEMBER 1978 (cont.)

County	Governor				Secretary of State			
	Democratic	Republican	Scattering	Total	Democratic	Republican	Scattering	Total
Sanilac	5,007	9,099	15	14,121	6,916	6,762	7	13,685
Schoolcraft	1,751	1,629	1	3,381	2,127	1,117	0	3,244
Shiawassee	10,461	12,594	11	23,066	15,018	7,567	5	22,590
Tuscola	7,252	9,558	0	16,810	9,261	6,930	5	16,191
Van Buren	8,311	10,174	0	18,485	10,018	7,822	13	17,840
Washtenaw	23,808	57,601	403	81,812	55,244	24,742	0	79,986
Wayne	334,248	339,884	188	674,320	499,708	158,191	20	657,919
Wexford	4,086	4,157	8	8,251	5,075	2,917	5	7,997

SOURCE: Michigan Department of Management and Budget, special release.

TABLE IX-11. LEGISLATIVE AND EXECUTIVE ACTION ON BILLS: 1958-1978

Year	House activity			Senate activity			Gubernatorial action	
	House bills introduced	House bills passed House	Senate bills passed House	Senate bills introducted	Senate bills passed Senate	House bills passed Senate	Bills presented to the Governor	Bills vetoed[a]
1958	589	255	100	341	135	137	237	6
1959	659	272	121	392	159	162	283	5
1960	552	171	70	245	103	97	167	3
1961	681	252	103	396	171	155	258	17
1962	782	244	92	458	150	161	253	10
1963	840	239	87	383	177	167	254	3
1964	958	250	112	529	215	193	305	8
1965	1,031	377	178	699	287	264	442	26
1966	1,021	394	106	539	184	260	366	15
1967[b]	1,300	267	152	823	239	168	320	0
1968	971	276	147	585	241	225	372	12
1969	1,924	310	159	1,114	321	198	357	11
1970	974	336	112	669	197	151	264[c]	10
1971	1,841	376	99	1,112	204	136	235	2
1972	578	218[d]	131	383	140	257[d]	388[c]	8
1973	1,526	275	105	1,071	178	123	215	5
1974	792	264	141	935	163	251	300	3
1975	1,877	420	114	1,247	208	246	344	8
1976	782	278	176	497	199	294	468	14
1977	1,835	396	105	1,285	200	225	322	3
1978	914	430	219	460	284	433	657	15

SOURCE: State of Michigan, Journal of the Senate 1974 (Lansing: annually), p. 2390, and special release.

a. One veto was overriden during 1977.
b. Including extra session.
c. In 1970 the legislature recalled one bill; in 1972, two.
d. Bills introduced in the first year of a new legislature carry over into the second year; since 1972 was the second year of the 76th legislature, the excess of House bills passing the Senate over those passing the House is explained.

TABLE IX-13. GOVERNORS OF THE STATE OF MICHIGAN

Name	Term
Stevens T. Mason	1835-1840
Edward Mundy, Lieut. Gov.[a]	
William Woodbridge[b]	1840-1841
James Wright Gordon, Lieut. Gov.	1841
John S. Barry	1842-1846
Alpheus Felch[c]	1846-1847
William L. Greenly, Lieut. Gov.	1847
Epaphroditus Ransom	1848-1850
John S. Barry	1850-1851
Robert McClelland[d]	1852-1853
Andrew Parsons, Lieut. Gov.	1853-1854
Kinsley S. Bingham	1855-1858
Moses Wisner	1859-1860
Austin Blair	1861-1864
Henry H. Crapo	1865-1868
Henry P. Baldwin	1869-1872
John J. Bagley	1873-1876
Charles M. Croswell	1877-1880
David H. Jerome	1881-1882
Josiah W. Begole	1883-1884
Russell A. Alger	1885-1886
Cyrus G. Luce	1887-1890
Edwin B. Winans	1891-1892
John T. Rich	1893-1896
Hazen S. Pingree	1897-1900
Aaron T. Bliss	1901-1904
Fred M. Warner	1905-1910

TABLE IX-13. GOVERNORS OF THE STATE OF MICHIGAN (cont.)

Name	Term
Chase S. Osborn	1911-1912
Woodbridge N. Ferris	1913-1916
Albert E. Sleeper	1917-1920
Alexander J. Groesbeck	1921-1926
Fred W. Green	1927-1930
Wilber M. Brucker	1931-1932
William A. Comstock	1933-1934
Frank D. Fitzgerald	1935-1936
Frank Murphy	1937-1938
Frank D. Fitzgerald[e]	1939
Luren D. Dickinson[f]	1939-1940
Murray D. Van Wagoner	1941-1942
Harry F. Kelly	1943-1946
Kim Sigler	1947-1948
G. Mennen Williams	1949-1960
John B. Swainson	1961-1962
George Romney[g]	1963-1969
William G. Milliken[h]	1969-

SOURCE: Michigan Department of Management and Budget, Michigan Manual 1977-1978 (Lansing: biennially), p. 96.

a. Served during the absences of Governor Mason from the state.
b. Resigned 24 February 1841 to become United States Senator.
c. Resigned 3 March 1847 to become United States Senator.
d. Resigned 7 March 1853 to become Secretary of Interior.
e. Died 16 March 1939.
f. Became Governor 17 March 1939.
g. Resigned 22 January 1969 to become U.S. Secretary of Housing and Urban Development.
h. Became Governor 22 January 1969.

THE TOLEDO WAR.

("*An Ohio Idea.*")

What is known as the Toledo War was one of a very peculiar and harmless character, beginning in perspective and ending without collision, fight, or casualty; yet exhibiting on the start on both sides a maximum of bombastic threatenings, prospective of possible coming war, with bloody battles and direful consequences, and although it brought out on the part of Michigan the most formidable military demonstration incident to a dispute, between States as to territory occurring in the United States, it ended in a wordy peace, which has resulted in handing down the whole affair, both civil and military, in undeserved traditional and written ridicule.

In the beginning of 1835 the State of Ohio undertook to enforce jurisdiction over certain territory south of the Maumee Bay, which was then considered as a portion of Michigan Territory, and claimed as such. The legislative council of Michigan on February 12, of that year, passed an act "to prevent the exercise of foreign jurisdiction within the limits of the Territory of Michigan," making it a penal offense for any one to accept or exercise any public office in any part of the Territory, except by commission from the United States, or Michigan. On the 19th of the same month Acting Governor Mason, in a letter of instructions in detail to General Joseph W. Brown, then commanding a division of the Michigan militia, says: "Under existing circumstances but one of two courses is left for Michigan to pursue. If Ohio continues to persevere in the attempt to wrest from us our territory, as she now meditates,—in voluntary submission to encroachment upon our rights, or firm and determined opposition to her,—the latter though painful to us, is preferable to the former, and must be decided upon. With this in view, I have, with due regard to the important task assigned you, concluded to give you the control of the measures necessary to be adopted in consequence of the peculiar and unpleasant relations which I fear may soon exist between the civil authorities of Ohio and those of this Territory."

General Brown, under the same date, issues the following address to the militia:

"FELLOW CITIZENS,—A cause which has the sanction of the highest authority in the nation, as well as the laws of our Territory, must be sustained by us, and will meet the approbation of all our common country who respect our institutions and who are capable of appreciating the just claims of the injured and weaker party when they are sought to be trodden down and trampled upon by mere physical force. We cannot submit to an invasion of our soil; we are

determined to repel with force whatever strength the State of Ohio may attempt to bring into our Territory to sustain her usurpations, and let the consequences which may follow rest on the guilty heads of those who attempt to deprive us by force of our rightful jurisdiction."

On the 23d following the Ohio Legislature asserting the right of that State and declaring that measures should be taken to establish it, Governor Lucas placed a Major General of militia in command, with instructions to enroll the militia of the districts in dispute for the purpose of protection, while running a boundary line which Ohio insisted on accomplishing. The matter of boundary had been laid before Congress, but failed to receive attention, and the acting Governor of Michigan, considering his Territory in possession, ordered General Brown to hold himself in readiness to resist any attempt of Ohio to carry out the threatened measures, the right of Michigan being sustained by the Attorney General of the United States, and also by the President and his advisers. After a futile attempt at conciliation and considerable delay, Ohio still persisting in her claim, the President intimated by letter that if that State attempted running the line with an armed force he would have to interfere to prevent it by the power of the United States. Still affairs remained quiet, with an occasional difficulty, but without any military demonstration. It was ascertained, however, that in accordance with the views of the Ohio Legislature a new county (Lucas) was to be organized over the disputed territory, and that a court was to be opened at Toledo on the 7th of September, 1835, and that this move was to be protected by Ohio troops. To meet this contemplated action Governor Mason ordered out the Michigan forces, and with them in person moved on Toledo; but on arriving there no opposing force was encountered and he peacefully took possession of the place, holding it for four days, when the Michigan troops, under an order of September 10th, returned and were disbanded at their various rendezvous, not having fired a gun at an enemy nor lost a man.

Ohio finally succeeded by strong political influence in obtaining the disputed ground, but only with what was claimed to have been the consent of Michigan, in lieu of which she received what is known as the Upper Peninsula.

Following is a statement of the officers and troops organized and called out by the Governor to take a part in the boundary quarrel referred to, and who were paid by the State for their services:

Governor, Stevens T. Mason. Staff: Colonels Isaac S. Rowland, Kintsign Pritchette, John Chester.

Major General Joseph W. Brown, commanding; Alpheus Felch, Aid-de-Camp; Charles W. Whipple, Division Inspector; Daniel S. Bacon, Division Quartermaster.

Brigadier General Martin Davis commanding 2d Brigade. E. C. Eaton, Brigade Major; J. E. Field, Brigade Quartermaster; Isaac J. Ullman, Brigade Inspector.

FIRST REGIMENT RIFLES.

FIELD AND STAFF.

J. D. Davis, Colonel; John Beedon, Jr., Major; F. L. Marcham, Surgeon; Peter Fralick, Paymaster; H. A. Noyes, Adjutant; Wm. McCurdy, Quartermaster.

COMPANY OFFICERS.

Captains, Albert Stroms, Richard Boughton, Charles M. McCormick, Eli Derby, Emery Richardson, A. D. Crane, James M. Murray, Horace Leek, S. B. Newton (supernumerary in charge of baggage train).

First Lieutenants, Ezra Bradner, Samuel Gates, Isaac Hiscock, Jr., Silas Dickenson, J. S. Lacey, Jacob I. Foot, Jared B. Cornish, Cyrus Burnett.

Second Lieutenants, Enos Bradner, Wm. A. Ballard, Samuel B. Hill, Edwin Bond, Henry B. H. Secord, Harvey Barton, Wm. Brewer, Norman C. Wells.

This command was made up of portions of eight companies, varying in size, and numbering 189 officers and men in the aggregate.

SECOND REGIMENT INFANTRY.

FIELD AND STAFF.

Warner Wing, Colonel; Apulus Drown, Major; Wm. W. Smith, Surgeon; Lewis E. Bradley, Adjutant; Almon H. White, Quartermaster.

COMPANY OFFICERS.

Captains, George W. Darrah, Joseph Morass, Gabriel Bissonette, Heman N. Spalding, Noyes W. Woodworth, John Bradford.

First Lieutenants, Levi Lewis, Francis Cousins, George C. Root, David Hall.

Second Lieutenants, Nelson White, John B. Derby.

Ensigns, James H. Withington, Peter Moran.

The force consisted of parts of seven companies, numbering 131 officers and men.

EIGHTH REGIMENT INFANTRY.

FIELD AND STAFF.

Davis Smith, Colonel; Samuel B. Evans, Lieutenant Colonel; Derastus Torrey, Major; Michael A. Patterson, Surgeon; Alonzo Cressy, Ass't Surgeon; Joseph E. Hall, Adjutant; Sydney F. Blanchard, Quartermaster; Thomas Sisson, Assistant Quartermaster; Hugh Hillock, Assistant Quartermaster.

COMPANY OFFICERS.

Captains, Reuben N. Hall, John Densmore, Peleg Pettis, Horatio N. Baldwin, Ebenezer Davis, Augustus Montgomery, Jedediah Raymond, Milton Hoag.

First Lieutenants, Eli Chatfield, Asa G. Edwards, Guy Carpenter.

Second Lieutenants, Joseph N. Chandler, John J. Adam, Adam Miner, J. Swick, Daniel McRoberts.

Ensigns, Benjamin Tibbetts, Simeon Spencer.

This regiment had eight small companies, 238 strong, in the aggregate.

OAKLAND DETACHMENT.

FIELD AND STAFF.

Frederick A. Sprague, Major; Andrew D. Voorheis, Surgeon; Israel B. Richardson, Surgeon; Benjamin Phelps, Paymaster; John L. Brownell, Quartermaster.

COMPANY OFFICERS.

Captains, Orange Foot, George Brownell, Linus Cone, John W. Ingram, Haron Haskins.

First Lieutenants, Mason I. James, Walter Drake, Nelson Rosevelt, Phineas W. Jenney, Edward W. Peck.

Second Lieutenants, Alanson Goodrich, William Lee, Henry Sprague, Calvin Chapel, Hiram Carhart. Chester Goodrich, Cornet.

This detachment was 180 strong, a portion of it being mounted as cavalry.

BUCKLIN'S DETACHMENT INFANTRY.

FIELD AND STAFF.

James Bucklin, Major; James Dunn, Adjutant.

COMPANY OFFICERS.

Captains, N. P. Thayer, John F. Rupley, Jonas Goodell, Thomas Geldard, Martin Greenman, Asahel L. Bird, Chas. M. Bull, George R. Griswold.

First Lieutenants, Paul Rice, John Thomas, Sheldin Beckwith, Lewis Fuller, Geo. C. Bates, Sidney L. Rood.

Second Lieutenants, Jasper Thomas, Jacob M. Howard, Thomas Dare.

Ensign, Joseph Y. Davis.

This command had an aggregate of 137 officers and men.

SHELBY VOLUNTEERS, ARTILLERY.

Captains, Orson Sheldon, A. White, Erastus Day, J. O. Ferris, N. W. Wadsworth.

Lieutenants, James St. John, Wm. H. Webster, Elias O. Maccall.

Ensigns, Gurdon C. Leech, C. C. Douglass.

This artillery force was made up of gun squads, 57 officers and men.

DETROIT LIGHT DRAGOONS.

First Lieutenant, John Wright; Second Lieutenant, Simeon Brown; Third Lieutenant, James Hanmer.

This company was 20 strong in the aggregate.

LIGHT HORSE.

Captain, Joseph Wood; First Lieutenant, James McBride; Second Lieutenant, Burton Hotchkiss; Stephen Crego, Cornet.

This company numbered 40 officers and men.

On the pay roll of these troops are found the names of the following officers not included in any of the commands mentioned, but it is presumed that they were on some duty connected with the expedition referred to, as Adjutant General Jno. E. Schwarts certifies that they were entitled to pay for services rendered:

John Montgomery, Major 1st battalion Heavy Artillery; Joseph Lapham, Adjutant; Abel Parkhurst, Paymaster; Chas. C. Jeffers, Surgeon; Horace Welch, Quartermaster; Peter Slingerland, Captain; Morell Goodrich, First Lieutenant; William Colby, Second Lieutenant; Ezra Higby, Third Lieutenant; Jesse W. Taylor, Captain Artillery; Richard Gorton, Assistant Surgeon; Wm. Thompson, Surgeon; L. Jenney, Assistant Surgeon; C. C. Hascall, Colonel; H. Hemans, Assistant Surgeon; C. C. Parks, Lieutenant; M. J. Bacon, Aid-de-Camp. With these officers are included a number of non-commissioned officers and privates, making in all 48 of an aggregate.

These troops, numbering in all 1,055, were paid by the State for their services $13,411.43, upon a certificate of Daniel Goodwin, Quartermaster General, by Henry Howard, State Treasurer, by authority of Robert Abbott, Auditor General, under acts of the Legislature approved March 28th and July 26th, 1836.

A Census of Governments was conducted by the U. S. Bureau of the Census for the years 1957, 1962, 1967, and 1972. The next such undertaking, scheduled to begin during 1978, pertains to the conduct of state, local, and federal government during the 1977 fiscal year.

Interim statistics on governmental finances and employment are provided in the Government Finances and Government Employment series by the U. S. Bureau of the Census. Michigan sources of such data are the Michigan Department of Treasury, Annual Report; Department of Management and Budget, State of Michigan Financial Report; State Tax Commission, releases; and Michigan Department of Civil Service, releases.

The Tax Foundation, Inc. publishes a biennial report, Facts and Figures on Government Finance, which includes, among other things, estimates of the federal tax burden among the states. Internal Revenue collections attributed to Michigan overstate the burden on this state because of the large number of multistate and multinational corporations that file in Detroit and environs, as well as other Michigan cities. The Tax Foundation, Inc. employs a variety of means to allocate federal taxes among the states in arriving at an approximation of the true burden on each state.

The Community Services Administration of the Executive Office of the President publishes an accounting of federal outlays among counties for each fiscal year. The figures generally reported are obligations, or funds set aside to be spent, not actual expenditures. For most categories, the figures are reasonable approximations of expenditure; but in the case of Department of Defense contracting, the statistics are impressionistic rather than definitive. In other words they provide important clues about where defense procurement is taking place, but can be misleading indicators of the volume of such activity. They are not adjusted to eliminate the effects of subcontracting. And they are not adjusted for the length of time over which the contractee has to satisfy the contract.

The Bureau of the Census employs a definition of government which includes state owned institutions of higher education along with government hospitals, regulatory agencies, police, and so forth. The concept is not the same as that used by the state of Michigan, which considers state universities and colleges to be separate entities. The state shows higher educational outlays as the funds it appropriates to higher education. The Census Bureau shows the consolidated accounts, meaning that student fees and tuition, and the operations of university-owned book stores, cafeterias, and other enterprises are shown as state revenues. Spending on higher education, in the Census Bureau accounts, includes total outlays of higher educational institutions.

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TABLE X-1. ORIGIN AND ALLOCATION, BY LEVEL OF GOVERNMENT, OF GENERAL REVENUE OF MICHIGAN STATE AND LOCAL GOVERNMENTS: FISCAL YEARS 1957-1977

(In millions of dollars)

Year	Originating level of government			Final recipient level of government		Total general revenue
	Federal	State	Local	State	Local	
1956-57	143.0	870.7	795.5	571.3	1,237.9	1,809.2
1957-58	174.1	907.1	911.1	612.5	1,379.8	1,992.3
1958-59	216.3	931.5	945.5	649.4	1,443.9	2,093.3
1959-60	222.7	1,049.0	994.3	736.2	1,529.8	2,266.0
1960-61	278.0	1,112.4	1,117.1	819.3	1,688.2	2,507.1
1961-62	289.5	1,156.6	1,141.1	910.9	1,676.2	2,587.1
1962-63	338.9	1,311.5	1,249.6	990.7	1,909.2	2,899.9
1963-64	404.3	1,408.6	1,312.3	1,144.0	1,981.2	3,125.2
1964-65	426.2	1,545.5	1,398.6	1,255.2	2,115.1	3,370.3
1965-66	471.9	1,724.0	1,528.6	1,347.0	2,377.6	3,724.6
1966-67	593.6	1,835.4	1,623.5	1,435.5	2,617.0	4,052.5
1967-68	637.6	2,226.6	1,800.3	1,868.2	2,796.2	4,664.5
1968-69	711.0	2,640.1	2,053.9	2,160.3	3,244.7	5,405.0
1969-70	818.2	2,769.7	2,330.6	2,264.5	3,654.0	5,918.5
1970-71	1,019.1	3,019.3	2,574.3	2,490.9	4,121.9	6,612.7
1971-72	1,306.9	3,572.1	3,038.9	3,121.8	4,796.2	7,918.0
1972-73	1,769.7	4,121.3	3,109.1	3,822.7	5,177.5	9,000.2
1973-74	1,845.2	4,417.1	3,538.4	3,889.5	5,911.3	9,800.8
1974-75	2,124.4	4,267.9	3,947.0	3,846.9	6,492.4	10,339.3
1975-76	2,667.3	4,607.0[a]	4,319.8	4,327.0	7,267.0	11,594.1
1976-77	2,841.1	5,763.5	4,580.3	5,192.1	7,992.8	13,184.9

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1976-77 (Washington, D.C.: 1978), Series GF 77, no. 5, Table 6.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

a. Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. During the fiscal year ended 30 June 1976, state tax collections totaled $3,769,500,000. If the fiscal year had ended 30 September 1976, they would have totaled around $4,200,000,000.

TABLE X-3. REVENUE OF LOCAL GOVERNMENTS IN MICHIGAN: 1957, 1962, 1967, 1972, AND 1977

(In millions of dollars)

Item	1957	1962	1967	1972	1977
General Revenue	1,268.8	1,699.5	2,648.9	4,853.8	8,078.6
Federal government	8.0	19.3	57.1	248.7	798.8
State government	465.2	539.2	968.3	1,566.2	2,699.4
Own sources	795.5	1,141.1	1,623.5	3,395.9	4,580.3
Taxes	624.8	888.7	1,184.4	2,184.7	3,173.1
Property	610.4	877.9	1,109.4	2,005.4	2,912.1
Individual income	0	0	60.6	135.1	187.6
Other	14.4	10.8	14.5	44.1	73.4
Charges and miscellaneous	170.7	252.4	439.1	854.2	1,407.2
Current charges	110.8	174.7	300.9	586.8	n.a.
Education	n.a.	44.2	91.9	135.1	n.a.
School lunch[a]	n.a.	25.1	41.7	63.4	n.a.
Other	n.a.	19.1	50.2	71.7	n.a.
Hospitals	n.a.	60.2	101.4	207.0	n.a.
Sewerage	n.a.	21.0	34.0	85.3	n.a.
Airports	n.a.	4.3	9.6	17.6	n.a.
Other	n.a.	45.0	64.1	141.8	n.a.
Special assessments	26.1	22.0	30.9	63.9	n.a.
Sale of property	3.6	4.8	15.0	10.3	n.a.
Interest earnings	9.8	17.7	50.9	102.8	n.a.
Other	20.4	33.2	41.3	90.3	n.a.
Utility Revenue	119.1	138.4	184.0	251.7	419.7
Water supply	57.7	75.2	105.4	152.8	233.2
Electric power	24.8	34.1	45.7	59.6	n.a.
Transit	36.4	29.0	32.9	39.3	n.a.
Natural gas	.2	0	0	0	0
Insurance Trust Revenue, Employee retirement	23.1	35.9	54.5	105.2	n.a.
TOTAL	1,411.0	1,873.8	2,887.3	5,210.8	n.a.

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 46, and similar census documents for 1957 (Table 46), 1962 (Table 46), and 1967 (Table 46); and Bureau of the Census, Governmental Finances, 1976-77 (Washington, D.C.: 1978), Series GF-77, no. 5, Tables 6, 21, and 24.

a. Gross sales.

n.a.: not available.

TABLE X-4. REVENUE OF STATE OF MICHIGAN: 1957, 1962, 1967, 1972, AND 1977

(In millions of dollars)

Item	1957	1962	1967	1972	1977
General Revenue	1,036.5	1,450.1	2,403.8	4,688.0	7,891.6
Federal government[a]	135.0	270.2	536.5	1,058.2	2,042.2
Local governments	30.8	23.3	31.9	57.6	85.8
Own sources	870.7	1,156.6	1,835.4	3,572.1	5,763.5
Taxes	771.5	1,007.5	1,530.8	3,062.4	4,843.7
Property	33.7	57.3	81.0	93.3	117.7
General sales and use	328.8	460.5	680.4	987.7	1,407.0
Selective sales	195.6	248.3	379.2	582.	757.9
Motor fuel	n.a.	152.6	190.8	300.8	430.4
Alcoholic beverages	n.a.	14.0	58.4	72.0	80.0
Tobacco products	n.a.	51.4	77.9	128.7	140.3
Other	n.a.	30.3	52.0	81.0	107.2
Motor vehicle licenses	n.a.	72.6	101.9	160.6	180.3
Individual income	0	0	0	728.9	1,465.5
Other	n.a.	168.8	288.4	509.4	915.3
Charges and miscellaneous	99.3	149.1	304.6	509.8	919.8
Current charges	80.2	116.4	225.3	399.7	592.8
Education[b]	n.a.	83.4	172.6	296.6	422.3
Hospitals	n.a.	19.6	28.5	64.8	109.6
Other	n.a.	13.4	24.2	38.3	60.9
Sale of property	.9	1.5	1.4	2.3	1.2
Interest earnings	8.5	8.6	25.8	50.1	95.5
Other	9.7	22.5	52.2	57.7	230.3
Liquor Store Revenue	178.3	169.7	232.3	306.5	338.3
Insurance Trust Revenue	131.1	209.0	288.1	477.4	1,459.4
Unemployment compensation	103.8	160.8	181.9	247.8	967.1
Employee retirement	23.0	42.5	93.1	213.2	439.1
Other	4.3	5.7	13.1	16.4	53.2
TOTAL	1,345.9	1,828.7	2,924.2	5,471.9	9,689.2

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 46, and similar census documents for 1957 (Table 46), 1962 (Table 46), and 1967 (Table 46); and Bureau of the Census, State Government Finances, 1977 (Washington, D.C.: 1978), Series GF-77, no. 3, Table 7.

a. Includes federal payments to state institutions of higher education.

b. Revenues of state institutions of higher education, exclusive of payments from state and federal government.

n.a.: not available.

TABLE X-5. PER CAPITA STATE AND LOCAL GOVERNMENTAL TAXES IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1956-1978

	State government		Local governments		Total	
Year	Michigan	United States	Michigan	United States	Michigan	United States
1956-57	$ 103	$ 86	$ 93	$ 84	$ 186	$ 170
1957-58	104	86	96	90	200	176
1958-59	104	90	98	94	203	184
1959-60	117	101	101	101	218	202
1960-61	123	105	111	109	234	214
1961-62	127	112	112	114	240	225
1962-63	143	118	120	118	263	237
1963-64	150	128	123	124	274	252
1964-65	161	136	127	132	288	268
1965-66	174	151	134	141	308	292
1966-67	179	163	138	148	317	311
1967-68	218	184	152	157	370	341
1968-69	257	209	172	174	430	383
1969-70	265	237	192	192	457	429
1970-71	284	251	210	212	494	463
1971-72	340	289	243	240	583	529
1972-73	390	326	245	254	636	579
1973-74	405	352	275	268	680	621
1974-75	383	378	303	289	685	667
1975-76	414[a]	417	335	316	749	733
1976-77	531	467	348	346	878	813
1977-78	580	519	n.a.	n.a.	n.a.	n.a.

SOURCES: Adapted from Bureau of the Census, State Tax Collections in 1978 (Washington, D.C.: 1979), Series GF-78 no. 1, Table 2 (1977-1978), Governmental Finances, 1958 through 1975-1977 (Washington, D.C.: annually), GF-77 no. 5, Table 6 (1976-1977), and U.S. Census of Governments: 1957, vol. 3, no. 5, Compendium of Government Finances (Washington, D.C.: 1959), Table 23 (1956-1957).

NOTE: Taxes include items such as sales and income taxes as well as licenses and permits such as motor vehicle operators licenses and state park camper fees. The population figures for deriving the data are taken from Table I-2 of this abstract. The 1975-1976 population figures can be obtained from averaging the 1975 and 1976 figures, and similarly for earlier years.

a: Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. If the 1976 fiscal year had ended 30 September, this figure would have been around $460.

n.a.: not available.

TABLE X-6. STATE AND LOCAL TAXES AS A PERCENTAGE OF PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1956-1978

	State government		Local governments		Total	
Year	Michigan	United States	Michigan	United States	Michigan	United States
1956-57	4.6	4.3	3.7	4.2	8.3	8.5
1957-58	4.8	4.2	4.4	4.4	9.1	8.6
1958-59	4.7	4.3	4.5	4.5	9.2	8.8
1959-60	5.1	4.6	4.4	4.6	9.5	9.3
1960-61	5.3	4.7	4.8	4.9	10.1	9.6
1961-62	5.3	4.8	4.7	4.9	10.1	9.8
1962-63	5.7	4.9	4.8	4.9	10.4	9.9
1963-64	5.6	5.1	4.6	4.9	10.2	10.0
1964-65	5.5	5.1	4.4	5.0	9.9	10.1
1965-66	5.5	5.3	4.2	4.9	9.8	10.2
1966-67	5.4	5.3	4.2	4.8	9.6	10.2
1967-68	6.2	5.6	4.3	4.8	10.5	10.4
1968-69	6.7	5.9	4.5	4.9	11.2	10.8
1969-70	6.6	6.3	4.8	5.1	11.4	11.3
1970-71	6.8	6.3	5.0	5.3	11.8	11.5
1971-72	7.4	6.7	5.3	5.6	12.7	12.3
1972-73	7.7	6.9	4.8	5.3	12.5	12.2
1973-74	7.4	6.8	5.0	5.1	12.3	11.9
1974-75	6.6	6.7	5.2	5.1	11.8	11.8
1975-76[a]	6.9	6.5	5.0	4.9	11.9	11.4
1976-77[a]	7.0	6.7	4.6	4.9	11.5	11.6
1977-78[a]	6.9	6.6	n.a.	n.a.	n.a.	n.a.

SOURCES: Adapted from Bureau of the Census, State Tax Collections in 1978 (Washington, D.C.: 1979), Series GF-78 no. 1, Table 2 (1976-1977), and Governmental Finances, 1958 through 1976-1977 (Washington, D.C.: annually), GF-77 no. 5, Table 6 (1976-1977).

NOTE: Included are items such as sales and income taxes as well as licenses and permits such as motor vehicle operators licenses and state park camper fees. The income figures for deriving the data are taken from Table VI-1 of this abstract. The 1974-1975 income figures are obtained from averaging the 1974 and 1975 figures, and similarly for earlier years. Calendar year income figures were used for 1976 and 1977.

a. The Michigan fiscal year was shifted to 30 September during 1975-1976 Previous fiscal years ended on 30 June.

n.a.: not available.

TABLE X-7. INTERGOVERNMENTAL REVENUE IN MICHIGAN, BY TYPE OF PROGRAM, FISCAL YEARS: 1957, 1962, 1967, 1972, AND 1977

(In millions of dollars)

Item	1957	1962	1967	1972	1977
General revenue from federal government to state of Michigan[a]					
Public welfare	47.6	76.5	141.9	485.4	996.6
Education	27.2	54.2	180.2	229.9	388.0
Highways	38.1	107.3	158.7	206.0	206.0
General Revenue sharing	0	0	0	0	91.3
Employment security administration	12.4	18.2	25.5	57.5	96.1
Health and hospitals	4.5	6.2	14.6	27.5	54.4
Natural resources	3.8	4.3	6.2	11.4	17.4
Other	1.2	3.4	9.3	40.5	192.3
TOTAL	135.0	270.2	536.5	1,058.2	2,042.2
Total revenue from state of Michigan to local governments					
Education	270.0	325.1	620.0	941.0	1,588.9
Highways	113.2	128.1	162.0	232.0	347.8
General support	n.a.	76.3	88.0	186.0	463.1
Public welfare	12.2	60.1	66.0	80.0	221.8
Other	76.7	20.1	32.0	127.0	226.7
TOTAL	485.5	609.7	968.0	1,566.0	2,848.3
General revenue from federal government to local governments					
General revenue sharing	0	0	0	0	181.0
Other	8.0	19.3	57.1	248.7	617.8
TOTAL	8.0	19.3	57.1	248.7	798.8
General revenue from local governments to state of Michigan					
Highways	10.5	13.6	15.8	26.4	16.8
Public welfare	1.6	.5	0	10.6	n.a.
Health and hospitals	6.5	6.2	11.2	11.9	18.4
Other	12.3	3.1	4.9	8.6	50.6
TOTAL	30.8	23.3	31.9	57.6	85.8

SOURCES: Bureau of the Census, State Government Finances, 1957, 1962, 1967, and 1972 (Washington, D.C.: annually), GF 77-No. 3(1978), Tables 7 amd 11. Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Fnances, No. 5, Compendium of Government Finances (Washington, D.C. 1974), and similar census documents for 1967 (vol. 4, No. 5, Table 29), 1962 (vol. 4, No. 4, Table 46), and 1957 (vol. 3, No. 5, Tables 46 and 47); and Bureau of the Census, Governmental Finances, 1976-77 (Washington, D.C.: 1978), GF 77-No. 5, Tables 6 and 7.

a. Includes payments to institutions of higher education.

n.a.: not available.

TABLE X-9. EXPENDITURES OF LOCAL GOVERNMENTS IN MICHIGAN: FISCAL YEARS 1957, 1962, 1967, 1972, AND 1977

(In millions of dollars)

Item	1957	1962	1967	1972	1977
General expenditure	1,322.3	1,835.1	2,856.6	5,046.2	n.a.
Intergovernmental, net	11.2	12.6	85.8	95.0	n.a.
Direct expenditure	1,311.1	1,822.6	2,770.8	4,951.3	7,886.4
Education	614.2	857.2	1,452.6	2,396.6	3,763.4
Higher	1.7	10.2	73.8	100.1	264.3
Capital outlay	n.a.	2.2	37.2	13.7	34.8
Other	n.a.	8.0	36.6	86.4	229.5
Local schools	612.5	847.3	1,378.7	2,296.5	3,499.1
Capital outlay	n.a.	157.8	224.6	226.7	287.8
Other	n.a.	689.5	1,154.1	2,069.8	3,211.3
Highways	167.9	180.6	230.0	351.3	514.8
Capital outlay	n.a.	83.9	95.9	159.8	209.3
Other	n.a.	96.7	134.1	191.5	305.5
Public welfare	36.0	83.6	92.1	141.6	228.3
Hospitals	81.4	114.5	153.9	256.2	598.6[a]
Capital outlay	n.a.	8.1	8.2	12.9	44.5
Other	n.a.	106.4	145.6	243.3	554.1
Health	11.8	14.6	21.3	67.5	n.a.
Police protection	65.9	80.9	116.5	245.0	435.5
Fire protection	36.8	46.6	67.0	107.9	182.9
Sewerage	35.7	66.6	73.6	316.8	306.1
Capital outlay	n.a.	50.1	43.7	245.2	166.9
Other	n.a.	16.5	29.8	71.5	139.2
Other sanitation	30.8	31.2	41.6	67.8	87.7
Parks and recreation	38.2	38.3	57.0	87.1	152.4
Urban renewal[b]	7.3	44.1	39.9	81.1	n.a.
Airports	6.4	5.0	31.4	26.5	n.a.
Correction	9.1	14.3	13.9	32.3	n.a.
Libraries	10.8	15.8	22.2	28.7	n.a.
Financial administration	n.a.	20.1	30.9	60.2	92.6
General control	55.8[c]	48.7	67.0	139.6	248.1
General public buildings	19.1	17.4	28.9	39.1	n.a.
Interest on general debt	27.2	56.7	92.4	201.6	330.7
Other	56.5	86.1	105.4	304.3	945.3[d]
Utility expenditure	125.7	136.6	215.1	334.1	519.5
Water supply	69.6	83.3	141.0	210.7	258.9
Electric power	23.6	29.3	43.1	71.3	n.a.
Transit	30.9	23.9	31.0	52.1	n.a.
Natural gas	1.6	0	0	0	0
Insurance trust expenditure, Employee retirement	37.3	42.4	61.3	97.9	n.a.
TOTAL	1,485.3	2,014.1	3,133.0	5,478.3	n.a.

SOURCE: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1969), Table 46, and similar census documents for 1957 (Table 46), 1962 (Table 46), and 1967 (Table 46); and Bureau of the Census, Government Finances, 1976-77 (Washington, D.C.: 1978), Series GF 77, no. 5, Tables 18 and 21.

a. Includes health.
b. Includes housing.
c. Includes financial administration.
d. Includes urban renewal and housing, airports, correction, libraries, and general public buildings.
n.a.: not available.

TABLE X-10. EXPENDITURE OF STATE OF MICHIGAN: 1957, 1962, 1967, 1972, AND 1977

(In millions of dollars)

Item	1957	1962	1967	1972	1977
General expenditure	1,196.4	1,565.2	2,531.3	4,532.0	7,649.3
Intergovernmental, net	485.5	609.7	978.6	1,619.1	2,848.6
Direct expenditure	710.9	955.5	1,552.7	2,912.9	4,800.9
Education	200.2	257.7	612.4	867.4	1,296.6
Higher	190.5	246.6	541.2	714.5	1,038.2
Capital outlay	n.a.	40.0	118.1	67.5	199.4
Other	n.a.	206.6	423.1	647.0	1,237.6
Other	9.7	11.1	71.2	152.9	258.4
Highways	196.7	305.7	285.6	344.5	392.0
Capital outlay	n.a.	285.9	260.3	316.3	329.3
Other	n.a.	19.8	25.2	28.3	62.7
Public welfare	90.0	107.0	234.7	948.4	1,767.8
Hospitals	79.0	90.4	142.1	218.6	339.4
Capital outlay	n.a.	6.6	14.1	4.7	22.1
Other	n.a.	83.8	128.0	213.9	317.3
Health	14.0	16.8	26.0	44.0	195.5
Police protection	9.4	12.5	19.4	38.5	72.2
Natural resources	26.7	31.9	47.0	83.9	135.7
Capital outlay	n.a.	1.4	4.3	17.1	n.a.
Other	n.a.	30.5	42.7	66.8	n.a.
Urban renewal	0	0	0	1.9[a]	4.2[a]
Airports	1.2	4.7	2.7	6.9	13.5
Correction	18.5	23.0	31.3	50.7	119.2
Employment Security Administration	12.1	17.5	22.9	55.2	99.1
Financial administration	19.7[b]	17.2	23.7	46.4	80.9
General control	n.a.	9.2	16.8	40.1	75.9
Interest on general debt	14.2	27.8	32.3	57.1	105.1
Other	29.0	34.0	55.8	109.2	176.0
Liquor store expenditure	137.8	132.5	187.9	247.7	280.3
Insurance trust expenditure	152.5	167.5	172.8	370.6	1,141.3
Unemployment compensation	135.1	134.8	111.4	260.0	842.1
Employee retirement	15.1	27.6	51.1	96.2	269.9
Other	2.3	5.1	10.3	14.4	29.2
TOTAL	1,001.2	1,865.2	2,892.0	5,150.3	9,070.8

SOURCE: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1969), Table 46, and similar census documents for 1957 (Table 46), 1962 (Table 46), and 1967 (Table 46); and Bureau of the Census, State Government Finances, 1977 (Washington, D.C.: 1978), Series GF-77, no. 3, Table 9.

a. Includes housing.

b. Includes general control.

n.a.: not available.

TABLE X-11. DETAIL OF REVENUE, STATE OF MICHIGAN, EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1977 AND 1978

(In thousands of dollars)

Source	1977	1978
Taxes		
Sales tax	1,223,667	1,376,414
Personal income tax	1,465,467	1,712,373
Corporation income tax	(23,218)	9,289
Financial institutions income tax	(303)	—
Use tax	183,323	210,482
Cigarette tax	140,261	140,739
Beer and wine tax	51,541	52,381
Single business tax	803,525	899,390
Liquor excise taxes	33,652	36,192
Horse race wagering tax	25,720	26,083
Intangibles tax	27,096	30,745
Inheritance tax	50,663	45,657
Telephone and telegraph company tax	76,212	81,966
Railroad company tax	10,487	—
Insurance company premium tax	81,547	99,755
Motor vehicle weight tax	166,993	173,363
Gasoline tax	402,763	413,195
Aviation fuel tax	3,705	3,873
Diesel fuel tax	22,959	24,696
Gas and oil severance tax	9,459	11,575
Privilege taxes	—	—
Watercraft registration tax	—	7,484
Delinquent railroad company tax (General Transportation Fund)	—	9,955
Penalties and interest-sales, income use, and single business tax	—	16,617
All other taxes	4,481	7,381
Total	4,760,007	5,389,620
From federal agencies for:		
Social service programs	979,320	1,143,879
School lunch programs	63,888	70,398
Vocational education and rehabilitation	61,627	61,955
Elementary and secondary education	112,371	155,359
Various other educational purposes	14,790	20,643
Various public health programs	45,571	44,988
Local hospital construction	4,233	—
Mental health programs	14,217	28,604
State share of revenue sharing	91,341	93,766
Various conservation programs	12,088	13,517
Airways purposes	7,768	13,920
Highway purposes	177,937	145,665
Employment security commission-administration	85,077	93,641
Public works employment act	n.a.	n.a.
Title II Counter-Cyclical Aid Payments	29,532	22,853

TABLE X-11. DETAIL OF REVENUE, STATE OF MICHIGAN, EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1977 AND 1978 (cont.)

(In thousands of dollars)

Source	1977	1978
From federal agencies for:		
Omnibus crime control	25,870	24,097
Comprehensive employment and training	57,647	88,415
Older Americans Act	9,442	21,368
Welfare relief	--	10,544
Federal-local public works	—	17,056
Community Services	14,123	—
All other purposes	34,083	36,139
Total	1,840,934	2,066,814
From local agencies for:		
Social services department programs	8,903	11,803
Mental health services	5,382	17,594
Highway construction	1,531	2,856[a]
County payment for institutional care	8,500	n.a.
Special education	—	1,022
All other purposes	4,867	2,849
Total	29,184	36,125
From services:		
Charges for furnishing vehicle driver records	8,797	9,250
Revenue from patients, wards, and inmates	18,094	24,058
All other services	6,402	4,684
Total	33,294	37,994
From licenses and permits:		
Liquor retailer, manufacturer, and wholesaler licenses	10,432	10,858
Motor vehicle operator and chauffeur licenses	14,492	13,210
Licenses, penalties, and interest-sales and use tax	9,970	—
Corporation franchise fees	5,891	4,010
Examination fees, banks, building and loan companies, trust companies, credit unions, and insurance companies	3,177	2,881
Department of Licensing and Regulation licenses and permits	6,362	6,969
Concession and privilege fees-state parks	4,615	5,526
Motor vehicle title fees, license plate transfer and dealer's plates, various special fees and registrations	10,799	11,294
Hunting, fishing, and trapping licenses	18,657	18,192
Corporation organization and filing fees	3,040	—
Other licenses and permits	20,981	25,049
Total	108,511	97,993

TABLE X-2. PERCENTAGE OF GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS ORIGINATING AT FEDERAL, STATE, AND LOCAL LEVEL, MICHIGAN AND UNITED STATES: FISCAL YEARS 1957-1977

Year	Originating level of government						Final recipient level of government			
	Michigan			United States			Michigan		United States	
	Federal	State	Local	Federal	State	Local	State	Local	State	Local
1956-57	7.9	48.1	44.0	10.1	43.1	46.8	31.6	68.4	34.2	65.8
1957-58	8.7	45.5	45.7	11.8	41.3	46.9	30.7	69.3	33.6	66.4
1958-59	10.3	44.5	45.2	14.1	40.2	45.8	31.0	69.0	35.1	64.9
1959-60	9.8	46.3	43.9	13.8	40.8	45.4	32.5	67.5	35.8	64.2
1960-61	11.1	44.4	44.6	13.2	40.5	46.3	32.7	67.3	34.3	65.7
1961-62	11.2	44.7	44.1	13.5	40.6	45.8	35.2	64.8	34.8	65.2
1962-63	11.7	45.2	43.1	13.9	40.8	45.4	34.2	65.8	35.1	64.9
1963-64	12.9	45.1	42.0	14.6	41.2	44.2	36.6	63.4	36.2	63.8
1964-65	12.6	45.9	41.5	14.8	41.2	44.0	37.2	62.8	36.1	63.9
1965-66	12.7	46.3	41.0	15.8	41.6	42.6	36.2	63.8	36.6	63.4
1966-67	14.6	45.3	40.1	16.9	41.4	41.7	35.4	64.6	36.9	63.1
1967-68	13.6	47.7	38.5	16.9	42.6	40.3	40.0	59.9	38.3	61.6
1968-69	13.1	48.8	37.9	16.7	43.2	40.0	39.9	60.0	37.9	62.0
1969-70	13.8	46.7	39.3	16.7	43.9	39.3	38.2	61.7	38.8	61.1
1970-71	15.4	45.6	38.9	18.0	42.2	39.6	37.6	62.3	37.2	62.7
1971-72	16.5	45.1	38.4	18.7	42.2	39.1	39.4	60.6	37.9	62.1
1972-73	19.7	45.8	34.5	20.6	42.3	37.1	42.5	57.5	38.5	61.5
1973-74	18.8	45.1	36.1	20.1	42.9	36.9	39.7	60.3	37.4	62.6
1974-75	20.5	41.3	38.2	20.6	42.4	37.0	37.2	62.8	36.6	63.4
1975-76	23.0	39.7	37.3	21.7	41.9	36.4	37.3	62.7	38.1	61.9
1976-77	21.5	43.7	34.7	21.9	42.4	35.7	39.4	60.6	38.3	61.7

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1976-77 (Washington, D.C.: 1978), Series GF-77, no. 5, Table 6.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

TABLE X-8. TAXES AND INTERGOVERNMENTAL REVENUE OF MICHIGAN COUNTIES, MUNICIPALITIES, AND TOWNSHIPS, FISCAL YEARS: 1976 AND 1977

(Thousands of dollars)

	1976				1977			
	Counties	Municipalities	Townships	Total	Counties	Municipalities	Townships	Total
Taxes								
Property	316,248	589,476	75,487	981,210	341,497	594,396	83,044	1,018,937
Sales and gross receipts								
General	--	--	--	--	--	--	--	--
Selective	--	24,805	--	24,805	306	31,325	--	31,631
TOTAL	--	24,805	--	24,805	306	31,325	--	31,631
Individual income	--	159,457	--	159,457	--	187,614	--	187,614
Motor vehicle license	--	131	--	131	--	131	--	131
All other	10,597	17,781	4,928	33,305	13,406	18,876	5,796	38,078
TOTAL	326,845	791,649	80,414	1,198,909	355,209	832,341	88,841	1,276,391
Intergovernmental revenue								
State								
Education	4	0	0	4	--	--	--	--
Public welfare	148,325	950	9	149,283	181,641	2	1	181,643
General support	52,767	182,611	61,100	296,479	53,474	272,459	67,333	393,266
Highway	198,940	103,599	200	302,739	221,534	110,128	246	331,908
TOTAL	516,921	340,516	65,898	923,335	576,830	455,733	72,445	1,105,009
Federal government								
General revenue sharing	53,835	109,445	15,837	179,117	55,056	108,656	17,357	181,069
Housing and urban renewal	103	67,390	1,105	68,598	262	55,095	2,390	57,746
TOTAL	151,017	378,869	17,924	547,810	190,804	456,064	22,886	669,775

SOURCE: Bureau of the Census, Taxes and Intergovernmental Revenue of Counties, Municipalities and Townships: 1975-76, Series GF, no. 9 (Washington, D.C.: May 1977), Table 3, and Taxes and Intergovernmental Revenue of Counties, Municipalities and Townships: 1976-77, Series GF 76, no. 9 (Washington, D.C.: May 1978), Table 3.

TABLE X-11. DETAIL OF REVENUE, STATE OF MICHIGAN, EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1977 AND 1978 (cont.)

(In thousands of dollars)

Source	1977	1978
Miscellaneous:		
Income from investments	23,318	50,207
Contributions and donations	1,597	—
Various fines, fees, and assessments	10,793	10,793
State park revenue bond proceeds and permit fees	--	—
District court fees	4,664	5,035
Oil and gas royalties, fees, assignments, and rentals	14,136	18,683
Farm production and sales	2,356	2,871
Lottery ticket sales	247,720	326,463
Air and water surveillance fees	--	3,664
Other miscellaneous	25,226	28,123
Total	329,813	445,842
From funds other than general and special revenue:		
Liquor purchase revolving fund	63,872	68,644
Escheats fund	—	6,500
Other funds	9,077	6,142
Total	72,950	81,286
TOTAL REVENUE	8,387,918	9,557,952

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1977 and 1978 (Lansing: annually), pp. 100-101 (1978).

a. Includes airport construction.

n.a.: not available.

TABLE X-12. MICHIGAN STATE GOVERNMENT EXPENDITURES, INCLUDING PAYMENT TO STATE INSTITUTIONS OF HIGHER EDUCATION BY BRANCH AND DEPARTMENT: FISCAL YEARS 1977 AND 1978

(In thousands of dollars)

Branch and department	1977 expenditures	1978 expenditures
General Fund		
Executive	$ 1,709	$ 1,854
Legislative	29,831	40,191
Judicial	26,005	29,528
Management and budget	71,118	80,868
Attorney General	10,705	12,047
Civil rights	6,274	7,226
Civil service	8,864	9,435
State	44,829	51,852
Treasury	33,126	36,052
Colleges and universities	594,267	646,232
Other education	1,028,622	1,108,872
Public health	110,823	125,149
Mental health	326,820	390,287
Social services	2,017,714	2,247,372
Corrections	106,225	136,546
Military affairs	9,212	9,571
State police	82,430	98,474
Commerce	47,405	64,409
Labor	67,483	112,213
Licensing and regulation	5,877	6,806
Natural resources	85,803	101,156
Agriculture	24,558	37,948
Expenditures not assigned	587,282	753,749
Total	5,326,996	6,107,850
State aeronautics fund	12,662	19,666
State trunkline fund	424,391	381,134
Motor vehicle highway fund	610,348	629,116
General transportation fund	42,863	56,240
Federal highway advance acquisition fund	432	--
Game and fish protection fund	19,807	22,697
Michigan state waterways fund	6,329	6,089
Marine safety fund	1,990	2,252
State park improvement fund	1,443	1,633
State recreational land acquisition trust fund	11	31
Michigan employment security act - administration fund	90,684	96,349
Michigan veterans' benefit (trust) fund	5,527	2,836
School aid fund	1,496,697	1,654,028
Motor vehicle accident claims fund	11,454	5,689
School emergency loan revolving fund	--	--
State lottery fund	254,600	331,804
State campaign fund	--	2,867
Total	8,306,242	9,320,290

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1977 and 1978 (Lansing: annually), pp. 98-99.

TABLE X-14. FEDERAL TAX BURDEN IN MICHIGAN AND THE UNITED STATES, SELECTED FISCAL YEARS: 1958-1980

Fiscal year	Amount (millions)[a]		Per capita	
	Michigan	United States	Michigan	United States
1958	$ 3,774	$ 76,247	$ 484	$ 446
1960	4,094	87,853	514	496
1962	4,217	94,329	530	516
1964	4,614	106,317	569	564
1966	5,590	123,402	676	633
1968	6,982	143,950	809	723
1970	8,936	186,947	1,011	922
1971	8,287	174,838	928	852
1972	8,954	193,804	995	934
1973	9,878	214,741	1,093	1,027
1974	11,492	243,467	1,266	1,156
1975	12,098	256,854	1,326	1,210
1976	12,919	278,420	1,405	1,301
1978[b]	17,902	389,163	1,950	1,788
1979[b]	20,306	441,424	2,203	2,013
1980[b]	22,371	486,333	2,417	2,202

SOURCE: Tax Foundation Inc., Facts and Figures on Government Finance, 1958 through 1975 (New York, N.Y.: biennially), Table 101 (1974), special release (1975 and 1976 data); and Monthly Tax Features, vol. 23, no. 2, February 1979, p. 3 (1978, 1979, and 1980 data).

NOTE: The burden for Michigan is estimated on the basis of a special formula designed for this purpose, since data on federal tax collections by state do not accurately reflect the distribution of the burden.

a. Total receipts minus refunds and miscellaneous receipts. Excludes state deposits for OASDHI for their employees and for unemployment insurance.

b. U.S. total taxes are as shown in the federal budget submitted in January 1979.

TABLE X-13. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES

Tax source	Year adopted	Fiscal year 1977 ($000)	Fiscal year 1978 ($000)	Disposition
State taxes				
Individual income tax	1967	1,465,467	1,712,374	12.1 percent of gross collections at 2.6 percent tax rate is distributed to local governments, 47 percent on a per capita basis to counties and 53 percent to other local units. The balance of the income tax revenues go to the State General Fund.
Business privilege taxes				
Single business tax	1975	803,525	899,390	State General Fund. Local units are reimbursed for loss of revenue due to the repeal of the inventory property tax replaced by the SBT.
Boxing and wrestling tax	1919	43	50	State General Fund
Foreign insurance company premium tax	1869	81,547	99,755	State General Fund
Horse race wagering tax	1933	25,720	26,084	State General Fund-with payments to cities hosting tracks, payments to purses, and payments for racing supervision.
Oil and gas severance tax	1929	9,459	11,575	State General Fund
Consumption taxes				
Beer and wine taxes (combined)	1933	51,541	52,381	State General Fund
Cigarette tax	1929	140,261	140,739	4.5 mills (9¢ per pack) to the General Fund and 1 mill (2¢ per pack) to the State School Aid Fund.
Liquor excise tax	1957	15,360	16,701	School Aid Fund
Liquor specific taxes	1959	15,360	16,701	General Fund
Liquor specific taxes	1973	2,931	2,790	Liquor Purchase Revolving Fund (LPRF)
Total liquor taxes		33,651	36,192	
Sales tax	1933	1,223,667	1,376,410	60% School Aid Fund, 15% to cities, villages, and townships; 25% State General Fund.
Use tax	1937	183,323	210,482	State General Fund

TABLE X-13. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1977 ($000)	Fiscal year 1978 ($000)	Disposition
State taxes (cont.)				
State property taxes:				
Inheritance taxes	1899	50,633	45,657	State General Fund and County General Funds.
Intangibles tax	1939	27,096	30,745	$9.5 million to cities, villages and townships, remainder to the State General Fund.
Stumpage yield tax	1925	115	140	State General Fund
Utility property tax	1905	87,595	83,307	State General Fund
Local taxes				
Accommodations tax	1974	1,037	n.a.	Dedicated to convention facilities and promotion of conventions and tourism, less costs of administering the tax.
Uniform city income tax	1964	195,542	203,425	City General Fund
Uniform city utility users tax	1970	30,378	32,433	General Fund of the city to be used exclusively for public safety.
General property tax	1893	3,207,095	3,503,000	To the local units and school districts as determined locally.
Grain tax	1945	321	n.a.	Local taxing units in the same proportion as general personal property taxes.
Industrial facility tax	1974	2,733	4,600	Same as for the general property tax except the share of local and intermediate school districts receiving general state school aid shall be paid to the State School Aid Fund.
Iron ore specific tax	1951	4,056	5,243	School districts and local units in the same proportion as the general property tax.
Mobile home-trailer-coach tax	1959	2,995	n.a.	Counties: 50¢; municipalities: 50¢; school districts: $2.00.

TABLE X-13. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1977 ($000)	Fiscal year 1978 ($000)	Disposition
State taxes (cont.)				
Transportation taxes:				
Aircraft registration and transfer fee	1923	68	68	Aeronautics Fund
Aviation gasoline tax	1929	3,705	3,873	Aeronautics Fund
Diesel fuel tax	1947	22,959	24,696	Current: 44.5 percent motor Vehicle Highway Fund for distribution to the state, 35.7 percent to counties, and 19.8 percent to cities and villages. (Different percentage distribution for 1979).
Gasoline tax	1925	402,755	413,188	Current: 44.5 percent Motor Vehicle Highway Fund for distribution to the state, 35.7 percent to counties, and 19.8 percent to cities and villages. 1/2¢ to General Transportation Fund $3.5 million for repayment of Mackinaw Bridge bonds. (Different % allocations effective 1979).
Liquified petroleum gas tax	1953	282	275	Current: 8.5¢ Motor Vehicle Highway Fund; 1/2¢ to General Transportation Fund. (Different % allocation effective 1979).
Marine vessel fuel tax	1947	18	20	Waterways Fund
Motor carriers privilege fee	1923	1,711	1,914	Credited to the Public Service Commission. Balance after administration to the Motor Vehicle Highway Fund.
Motor vehicle weight registration tax	1905	166,993	173,363	Current: Motor Vehicle Highway Fund. (Different allocation effective 1979).
Watercraft registration fee	1967	408	7,484	25% Waterways Fund; 75% Marine Safety Fund.
State property taxes:				
Commercial forest tax	1925	478	n.a.	Specific: distributed to the local units in the same proportions as the general property tax. Withdrawal: State General Fund.

TABLE X-13. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1977 ($000)	Fiscal year 1978 ($000)	Disposition
Local taxes (cont.)				
Real estate property transfer tax	1966	6,500	n.a.	General Fund in county where tax is collected.
Tax reverted recreation and forest land transfer payment (Swamp tax)	1917	2,042	2,043	Counties and townships each receive $ .60, and schools, $ .30.

SOURCE: Michigan Department of Management and Budget, special release.

n.a.: not available.

TABLE X-15. COMPARATIVE FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1955-1977

Year	Number of returns (000)		Thousands of dollars							
			Adjusted gross income		Salaries and wages		Taxable income		Income tax[a]	
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1955	2,727	58,252	13,402	248,779	11,444	200,984	n.a.	128,020	1,688	29,654
1956	2,715	59,181	13,911	267,653	11,617	215,677	7,861	141,446	1,839	32,706
1957	2,699	59,824	14,238	280,229	12,087	228,009	7,967	149,312	1,845	34,382
1958	2,576	59,080	12,922	281,252	10,947	227,618	6,991	149,401	1,607	34,351
1959	2,601	60,260	14,218	305,200	14,218	305,371	7,975	166,574	1,821	38,653
1960	2,624	61,025	14,822	315,832	12,623	258,170	8,300	171,932	1,908	39,545
1961	2,580	61,498	14,630	330,074	12,288	266,989	8,168	181,940	1,892	42,271
1962	2,612	62,709	15,949	348,707	13,526	283,367	9,159	195,307	2,107	44,893
1963	2,682	63,943	17,033	368,728	14,362	299,381	9,976	209,090	2,315	48,204
1964	2,778	65,375	18,922	396,717	15,856	323,292	11,409	229,881	2,361	47,160
1965	2,946	67,599	20,959	429,254	17,480	347,199	13,152	255,070	2,582	49,525
1966	3,051	70,153	23,003	468,347	19,329	380,934	14,779	286,230	2,934	56,071
1967	3,081	71,653	24,061	504,719	20,095	411,537	15,661	314,990	3,154	62,899
1968	3,169	73,731	26,372	554,337	22,092	451,430	17,322	352,672	3,776	76,611
1969	3,255	75,845	28,920	603,602	24,686	498,973	19,326	388,817	4,343	86,569
1970	3,155	74,278	29,267	631,626	25,256	531,869	19,067	401,057	4,005	83,759
1971	3,143	74,573	31,283	673,677	27,132	565,056	19,880	414,028	4,100	85,253
1972	3,270	77,570	35,084	746,006	30,403	622,656	21,912	445,558	4,599	93,354
1973	3,423	80,693	39,221	827,148	34,162	687,179	25,194	511,929	5,350	107,901
1974	3,461	83,340	41,248	905,523	36,163	758,629	26,638	573,606	5,723	123,465
1975	3,355	82,177	41,156	948,094	35,811	795,213	26,418	595,626	5,547	124,624
1976	3,461	84,536	46,834	1,053,593	40,682	879,770	30,829	674,428	6,521	140,919
1977	3,572	86,493	52,949	1,155,699	46,427	965,608	n.a.	n.a.	7,856	159,331

SOURCE: Internal Revenue Service, Statistics of Income, Individual Income Tax Returns (Washington, D.C.: annually), Table 5.I (1977).

NOTE: Items included on income tax returns filed by Michigan and U.S. residents.
a. After credits.
n.a.: not available.

TABLE X-16. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Number of returns	3,460,563	3,572,396	84,536,143	86,493,391	4.1	4.1
Adjusted gross income less deficit	46,834,485	52,949,467	1,053,592,868	1,155,699,081	4.4	4.6
Salaries and wages (gross):						
Number of returns	3,117,454	3,231,391	75,418,316	77,206,389	4.1	4.2
Amount	40,681,725	46,427,165	879,769,742	965,608,459	4.6	4.8
Business or profession net profit less net loss:						
Number of returns	258,089	259,029	7,518,798	7,715,345	3.4	3.4
Amount	1,513,398	1,735,788	44,411,252	49,354,268	3.4	3.5
Farm net profit less net loss:						
Number of returns	84,110	66,099	2,810,218	2,496,761	3.0	2.6
Amount	36,284	-13,223	3,531,331	804,009	1.0	—
Partnership net profit less net loss:						
Number of returns	87,399	103,286	2,578,250	2,635,936	3.4	3.9
Amount	298,358	412,856	12,085,888	13,655,843	2.5	3.0
Sales of capital assets net gain less net loss:						
Number of returns	322,779	278,970	8,464,268	8,622,095	3.8	3.2
Amount	652,634	417,056	18,250,896	19,661,021	3.6	2.1
Sales of property other than Capital assets net gain less net loss:						
Number of returns	46,329	31,201	1,093,368	977,137	4.2	3.2
Amount	-52,206	28,174	125,841	539,464	—	5.2
Domestic & foreign dividends received: Total:						
Number of returns	594,774	565,282	13,572,988	13,370,279	4.4	4.2
Amount	1,057,195	1,040,875	25,889,051	28,591,308	4.1	3.6

TABLE X-16. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977 (cont.)

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Interest received:						
Number of returns	1,819,536	1,927,281	42,584,833	43,961,840	4.3	4.4
Amount	1,771,861	2,002,325	48,441,608	54,409,964	3.7	3.7
Rent net income less net loss:						
Number of returns	238,854	218,654	6,721,577	6,797,526	3.6	3.2
Amount	78,508	82,171	3,895,719	3,297,543	2.0	2.5
Royalty net income less net loss:						
Number of returns	18,733	8,790	635,718	573,415	2.9	1.5
Amount	30,258	14,751	2,010,535	2,227,979	1.5	0.7
Estate or trust net income less loss:						
Number of returns	21,478	16,425	819,316	740,199	2.6	2.2
Amount	39,566	73,089	2,823,283	2,749,205	1.4	2.7
Pensions and annuities in adjusted gross income:						
Number of returns	236,571	262,026	5,540,835	6,224,656	4.3	4.2
Amount	894,959	1,091,561	24,532,396	29,475,542	3.6	3.7
Alimony received:						
Number of returns	26,765	n.a.	635,642	n.a.	4.2	n.a.
Amount	102,175	n.a.	2,006,174	n.a.	5.1	n.a.
Itemized deductions:						
Number of returns	1,299,391	n.a.	25,897,681	n.a.	5.0	n.a.
Amount	6,192,164	n.a.	13,321,803	n.a.	4.6	n.a.

TABLE X-16. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977 (cont.)

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Standard deductions:						
Number of returns	2,145,176	n.a.	58,118,746	n.a.	3.7	n.a.
Amount	4,178,743	n.a.	11,369,750	n.a.	3.7	n.a.
Exemptions:						
Number of returns	8,932,039	n.a.	215,266,535	n.a.	4.1	n.a.
Amount	6,699,029	n.a.	161,449,001	n.a.	4.1	n.a.
Taxable income:						
Number of returns	2,826,747	n.a.	68,649,540	n.a.	4.1	n.a.
Amount	30,828,857	n.a.	674,427,715	n.a.	4.6	n.a.
Income tax after credits:						
Number of returns	2,694,615	n.a.	64,408,856	n.a.	4.2	n.a.
Amount	6,520,603	n.a.	140,919,120	n.a.	4.6	n.a.
Total income tax:						
Number of returns	2,696,402	2,734,156	64,430,958	64,349,872	4.2	4.2
Amount	6,554,071	7,856,451	141,886,352	159,330,829	4.6	4.9
Total tax liability:						
Number of returns	2,737,311	2,791,909	65,989,560	66,138,167	4.1	4.2
Amount	6,677,579	8,003,284	145,813,508	163,513,341	4.6	4.9

SOURCE: Internal Revenue Service, Preliminary Statistics of Income, 1976, Individual Income Tax Returns (Washington, D. C.: 1977), Table 8; and Internal Revenue Service, Preliminary Statistics of Income, 1977, Individual Income Tax Returns (Washington, D.C.: 1979), Table 8.

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Adrian	$117,366,300	$ 674,856	$ 1,643,145	$ 4,269,964	56.13	$ 6,587,965
Albion	47,056,485	291,280	565,148	1,774,500	55.91	2,630,928
Algonac	23,513,314	131,439	316,724	796,561	52.94	1,244,724
Allegan	27,276,450	182,752	354,594	766,741	47.81	1,304,087
Allen Park	268,021,206	2,095,926	4,154,557	10,056,211	60.84	16,306,694
Alma	51,750,757	227,703	815,628	1,894,560	56.77	2,937,891
Alpena	106,804,930	758,315	2,015,409	3,146,473	55.43	5,920,197
Ann Arbor	777,334,800	5,029,356	14,567,254	34,801,279	69.98	54,397,889
Au Gres	5,513,759	27,215	89,212	135,877	45.76	252,304
Auburn	11,300,635	74,586	101,706	352,729	46.81	529,021
Bad Axe	18,822,883	80,167	235,286	382,481	37.08	697,934
Bangor	7,462,712	49,626	126,867	242,539	56.15	419,032
Battle Creek	214,302,024	1,326,530	3,106,736	8,606,641	60.85	13,039,907
Bay City	228,753,820	1,509,777	6,485,173	7,117,238	66.06	15,112,188
Beaverton	6,162,638	43,453	98,533	186,481	53.30	328,467
Belding	22,345,540	115,080	316,309	728,554	51.9[illegible]	1,159,943
Belleville	16,656,933	130,257	273,174	659,448	63.81	1,062,880
Benton Harbor	52,064,544	287,657	1,252,208	1,722,816	62.67	3,262,680
Berkley	97,302,650	533,219	1,920,754	4,386,058	70.30	6,840,031
Bessemer	8,505,850	68,642	194,952	306,381	67.01	569,975
Big Rapids	36,288,100	221,357	175,634	1,073,725	40.53	1,470,717
Birmingham	261,703,242	1,434,134	4,744,680	10,216,895	62.65	16,395,708
Bloomfield Hills	100,494,732	550,711	1,423,327	3,693,942	56.40	5,667,980
Boyne City	20,138,004	110,762	447,068	657,508	60.35	1,215,338
Bridgman	17,736,300	97,993	248,308	238,323	32.96	584,624

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Brighton	$ 36,897,411	$ 193,711	$ 599,583	$ 1,493,238	61.97	$ 2,286,533
Bronson	10,388,455	76,875	158,428	319,757	53.43	555,060
Brown City	5,819,273	29,101	98,928	160,961	49.66	288,990
Buchanan	35,583,550	196,599	498,170	1,251,651	54.70	1,946,420
Burton	190,161,384	1,127,656	1,660,031	6,975,319	51.34	9,763,006
Cadillac	56,165,532	379,117	1,333,941	1,768,091	61.98	3,481,149
Carson City	5,132,500	28,229	92,385	162,772	55.21	283,386
Caspian	3,402,750	28,583	78,263	101,402	61.20	208,248
Cedar Springs	8,438,800	40,506	118,143	271,561	50.98	430,210
Center Line	75,355,684	412,949	1,526,706	3,268,013	69.11	5,207,668
Charlevoix	32,373,700	178,055	388,484	940,456	46.55	1,506,996
Charlotte	48,383,500	266,109	943,478	1,589,882	57.86	2,799,469
Cheboygan	27,700,779	159,002	625,206	746,813	55.27	1,531,022
Clare	20,226,977	111,248	343,859	717,249	57.96	1,172,356
Clawson	96,198,393	527,167	1,464,355	3,837,354	60.59	5,828,877
Clio	13,434,240	79,665	201,514	442,793	53.89	723,971
Coldwater	56,924,302	421,240	788,402	1,817,024	53.17	3,026,665
Coleman	4,441,791	20,433	79,954	171,991	61.32	272,378
Coloma	10,408,008	57,504	166,528	366,622	56.75	590,654
Cooperville	12,912,376	57,333	200,142	390,199	50.16	647,674
Corunna	14,623,540	95,872	237,633	432,520	52.38	766,025
Croswell	12,099,000	60,495	267,267	336,352	54.89	664,114
Crystal Falls	7,533,750	63,284	107,733	235,806	54.00	406,823
Davison	31,389,200	186,138	324,878	1,208,798	54.79	1,719,814
Dearborn	1,205,869,833	9,429,902	21,802,145	40,227,241	59.26	71,459,289

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Dearborn Heights	$ 403,329,974	$ 3,154,040	$ 6,428,529	$ 15,723,412	62.74	$25,305,982
Detroit	4,854,762,750	37,964,245	159,941,687	166,955,291	75.16	364,861,222
Dewitt	15,429,158	87,946	229,895	639,539	62.05	957,379
Dowagiac	26,767,333	188,710	468,432	777,858	53.61	1,435,000
Durand	17,939,194	117,591	271,152	587,832	54.44	976,575
East Detroit	220,593,230	1,158,114	3,972,334	9,602,105	66.79	14,732,553
East Grand Rapids	88,050,400	422,642	1,628,932	3,742,142	65.80	5,793,716
East Jordan	12,478,993	68,635	227,742	444,876	59.40	741,254
East Lansing	175,846,780	1,396,223	3,086,111	8,590,125	74.34	13,072,460
East Tawas	17,465,342	82,594	253,248	397,338	41.98	733,179
Eaton Rapids	23,129,809	127,215	318,036	781,325	53.03	1,226,576
Ecorse	217,577,688	1,701,458	4,819,348	6,687,797	60.71	13,208,603
Escanaba	75,169,650	409,675	1,165,156	2,681,301	56.62	4,256,132
Essexville	27,196,417	179,500	333,972	510,296	37.64	1,023,768
Evart	12,739,506	70,067	159,836	339,511	44.70	569,414
Farmington	103,745,010	568,523	1,193,068	4,459,998	59.97	6,221,588
Farmington Hills	502,437,200	2,753,356	4,521,948	21,635,480	57.54	28,910,783
Fennville	4,498,307	30,139	62,976	155,552	55.28	248,667
Fenton	55,560,672	329,476	876,750	2,231,742	61.88	3,437,968
Ferndale	151,785,150	831,783	3,538,123	6,110,781	69.05	10,480,686
Ferrysburg	16,183,240	71,854	142,423	544,712	46.90	758,988
Flat Rock	123,923,350	969,081	1,734,817	4,332,353	56.78	7,036,251
Flint	1,184,289,030	7,022,834	10,208,180	52,218,204	58.64	69,449,218
Flushing	53,730,267	318,621	529,242	1,942,888	51.94	2,790,752
Frankenmuth	39,511,405	221,264	462,373	1,344,178	51.32	2,027,815

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Frankfort	$ 11,130,600	$ 58,436	$ 204,803	$ 294,961	50.15	$ 558,200
Fraser	105,541,950	554,095	1,933,529	4,712,976	68.22	7,200,599
Fremont	30,585,130	178,923	336,438	973,831	48.69	1,489,192
Gaastra	1,116,637	9,380	25,685	33,276	61.20	68,340
Galesburg	7,715,300	39,348	77,153	313,627	55.75	430,128
Garden City	171,809,648	1,343,551	2,921,123	6,583,746	63.14	10,848,420
Gaylord	25,219,982	116,012	327,868	608,810	41.74	1,052,691
Gibraltar	48,457,962	378,941	944,932	1,925,719	67.06	3,249,593
Gladstone	19,915,175	108,543	338,558	634,902	54.33	1,082,002
Gladwin	12,705,892	89,589	224,584	403,158	56.46	717,331
Gobles	3,044,335	20,245	60,888	87,677	55.45	168,810
Grand Blanc	54,701,763	324,382	497,239	2,102,739	53.46	2,924,360
Grand Haven	84,868,640	376,817	1,317,173	2,856,594	53.62	4,550,583
Grand Ledge	30,692,000	168,806	522,686	1,213,870	62.08	1,905,362
Grand Rapids	939,890,225	4,511,473	9,444,023	31,829,932	48.71	45,785,428
Grandville	81,682,200	392,075	735,140	2,653,825	46.29	3,781,040
Grant	2,927,200	17,124	39,517	91,475	50.60	148,116
Grayling	15,273,700	108,901	221,469	434,537	50.08	764,907
Greenville	48,092,600	264,509	677,153	1,515,590	51.09	2,457,252
Grosse Pointe	69,090,620	540,289	1,541,418	2,820,970	70.96	4,902,677
Grosse Pte Farms	141,905,490	1,109,701	2,547,213	5,794,001	66.60	9,450,915
Grosse Pte Park	103,542,379	809,701	2,019,080	4,227,635	68.15	7,056,417
Grosse Pte Woods	189,164,152	1,479,264	3,210,118	7,722,397	65.61	12,411,780
Hamtramck	108,022,783	844,738	3,142,831	3,484,815	69.17	7,472,384
Hancock	22,499,797	133,498	372,729	622,119	50.15	1,128,346

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate	Total Taxes
Harbor Beach	$ 22,300,459	$ 94,978	$ 329,378	$ 580,927	45.08	$ 1,005,282
Harbor Springs	15,330,500	88,809	197,609	377,128	43.28	663,546
Harper Woods	135,691,857	1,061,110	2,755,381	4,281,951	59.68	8,098,443
Harrison	11,155,300	61,354	151,158	335,105	49.09	547,617
Harrisville	3,676,600	15,626	28,494	83,275	34.65	127,394
Hart	10,664,675	57,429	124,777	315,994	46.71	498,200
Hartford	8,105,447	53,903	121,585	273,154	55.35	448,641
Hastings	37,216,200	218,459	602,902	1,168,961	53.48	1,990,322
Hazel Park	98,307,625	538,726	2,584,540	4,163,328	74.12	7,286,593
Highland Park	145,641,300	1,138,915	4,511,988	6,026,637	80.18	11,677,540
Hillsdale	40,335,440	191,593	685,709	1,311,305	54.26	2,188,607
Holland	166,954,267	840,155	2,880,144	6,038,930	58.45	9,759,229
Houghton	17,455,359	103,568	265,711	507,427	50.23	876,706
Howell	48,997,300	257,236	881,951	1,805,551	60.10	2,944,738
Hudson	14,342,839	82,471	164,943	441,473	48.03	688,887
Hudsonville	21,114,700	93,749	147,803	620,075	40.81	861,628
Huntington Woods	55,713,100	305,308	1,096,475	2,485,991	69.78	3,887,774
Imlay City	16,085,459	94,824	211,051	520,976	51.40	826,851
Inkster	129,231,689	1,010,592	2,752,759	5,287,644	70.04	9,050,994
Ionia	27,339,300	140,797	423,765	733,896	47.49	1,298,459
Iron Mountain	46,694,561	375,891	957,240	1,481,855	60.29	2,814,986
Iron River	11,763,128	98,810	276,768	350,541	61.73	726,120
Ironwood	30,063,900	242,616	616,310	977,678	61.09	1,836,604
Ishpeming	38,469,779	253,901	865,570	1,171,636	59.56	2,291,106
Ithaca	13,838,069	60,888	229,712	418,601	51.25	709,201

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate*	Total Taxes
Jackson	$222,320,400	$ 1,545,127	$ 3,076,326	$ 9,776,812	64.76	$14,398,265
Kalamazoo	458,624,200	2,338,983	8,314,857	19,052,549	64.77	29,706,389
Keego Harbor	14,440,500	79,134	281,592	595,526	66.22	956,252
Kentwood	204,314,050	980,707	1,235,545	7,254,062	46.35	9,470,314
Kingsford	33,417,674	269,012	632,568	1,005,204	57.06	1,906,784
Laingsburg	3,665,291	24,027	80,639	117,942	60.73	222,607
Lake City	5,856,764	28,698	76,138	134,120	40.80	238,956
Lansing	797,770,275	6,306,767	8,582,688	33,756,703	60.98	48,646,159
Lapeer	39,409,200	232,317	433,501	1,404,465	52.53	2,070,284
Lathrup Village	46,713,208	255,988	686,684	1,782,576	58.34	2,725,249
Leslie	8,808,762	69,942	107,908	336,584	58.40	514,434
Lincoln Park	233,847,135	1,828,685	4,136,724	7,836,155	59.02	13,801,563
Litchfield	8,032,992	38,162	100,580	273,719	51.35	412,460
Livonia	1,013,751,925	7,927,540	14,001,238	45,025,711	66.05	66,954,489
Lowell	19,693,400	94,528	246,168	706,402	53.17	1,047,098
Ludington	52,830,000	278,097	1,014,338	1,198,196	47.14	2,490,632
Luna Pier	35,073,076	208,685	675,156	1,041,990	54.91	1,925,831
Mackinac Island	9,997,422	48,488	119,969	206,447	37.50	374,904
Madison Heights	265,346,601	1,454,099	3,937,885	11,137,173	62.29	16,529,157
Manistee	43,402,289	250,214	1,051,811	1,251,288	58.83	2,553,313
Manistique	17,660,440	113,380	415,020	618,998	64.97	1,147,399
Manton	4,991,781	33,695	64,893	131,783	46.15	230,571
Marine City	26,854,225	150,115	530,371	797,705	55.05	1,478,191
Marquette	188,130,789	1,241,663	1,937,757	6,518,732	51.55	9,698,152
Marshall	50,713,748	313,918	954,636	2,013,843	64.72	3,282,397

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Marysville	$ 119,317,425	$ 66,984	$ 2,040,805	$ 3,657,676	53.35	$ 6,365,465
Mason	30,760,900	244,242	397,431	1,195,984	59.74	1,837,656
McBain	2,373,011	11,618	35,566	61,174	45.66	108,358
Melvindale	85,485,807	668,499	1,993,041	3,210,847	68.69	5,872,387
Memphis	5,178,418	27,716	103,568	149,853	54.29	281,137
Menominee	57,731,650	344,138	850,907	1,757,929	51.15	2,952,974
Midland	684,357,660	3,148,846	6,588,734	19,484,058	42.70	29,221,639
Milan	33,068,600	208,088	437,828	1,112,351	53.17	1,758,267
Monroe	380,174,360	2,262,037	4,964,316	11,978,779	50.52	19,205,132
Montague	12,102,000	79,873	211,788	407,232	57.75	698,893
Morenci	10,489,100	60,312	136,358	335,232	50.71	531,902
Mount Clemens	121,431,202	637,514	2,541,555	5,368,288	70.39	8,547,357
Mt. Morris	14,878,850	88,257	297,667	549,441	62.87	935,365
Mt. Pleasant	82,210,675	797,444	1,134,507	2,807,494	57.65	4,739,445
Munising	18,018,744	128,835	450,473	604,530	65.70	1,183,839
Muskegon	212,509,075	1,402,560	3,857,676	8,063,593	62.70	13,323,829
Muskegon Heights	49,902,375	329,356	898,243	1,932,702	63.33	3,160,300
Negaunee	23,147,695	152,775	520,823	537,837	52.34	1,211,435
New Baltimore	34,695,946	182,154	608,384	1,250,962	58.84	2,041,500
New Buffalo	15,177,872	83,858	295,974	472,290	56.14	852,121
Newaygo	6,130,137	35,861	85,822	194,019	51.50	315,702
Niles	77,181,632	426,429	1,535,914	2,849,469	62.34	4,811,812
North Muskegon	32,411,300	213,915	341,939	1,229,037	55.07	1,784,890
Northville	53,521,346	365,463	770,708	2,450,207	67.01	3,586,378
Norton Shores	135,461,500	894,046	1,167,728	5,049,809	52.50	7,111,583

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Norway	$ 11,980,845	$ 96,446	$ 179,782	$ 345,647	51.91	$ 621,875
Novi	215,323,498	1,179,973	2,646,326	9,334,948	61.12	13,161,247
Oak Park	195,150,740	1,069,426	5,211,759	8,233,907	74.38	14,515,092
Olivet	4,363,900	24,001	52,367	152,126	52.36	228,494
Omer	1,392,641	6,874	22,492	34,315	45.73	63,681
Onaway	4,441,886	25,496	79,954	108,871	48.25	214,321
Orchard Lake Village	28,971,650	158,765	405,603	1,184,752	60.37	1,749,120
Otsego	27,280,500	182,779	300,086	845,423	48.69	1,328,288
Owosso	75,801,103	497,255	1,257,752	2,321,030	53.77	4,076,037
Parchment	26,218,200	133,713	275,291	980,299	52.99	1,389,302
Perry	8,250,693	54,092	140,357	252,042	54.12	446,491
Petersburg	5,002,597	29,765	85,045	177,092	58.35	291,903
Petoskey	47,088,730	272,785	561,320	1,511,558	49.81	2,345,664
Pinconning	9,207,301	60,770	174,939	254,703	53.26	490,412
Plainwell	22,591,759	151,365	363,732	817,596	58.99	1,332,692
Pleasant Ridge	23,505,250	128,809	586,694	929,163	69.97	1,644,666
Plymouth	92,597,368	724,111	1,477,294	3,877,978	65.65	6,079,383
Pontiac	546,810,700	2,996,523	11,931,437	21,117,829	65.92	36,045,789
Port Huron	195,840,127	1,094,752	3,510,815	7,276,458	60.67	11,882,025
Portage	304,546,857	1,553,189	3,176,424	11,715,051	54.00	16,444,664
Portland	16,033,099	82,570	240,532	468,070	49.35	791,172
Potterville	5,666,942	31,168	85,004	218,763	59.10	334,935
Reading	3,633,180	17,258	56,315	103,945	48.86	177,518
Reed City	11,727,174	64,501	172,600	307,954	46.48	545,055
Richmond	20,732,846	108,847	362,825	760,792	59.45	1,232,464

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
River Rouge	$ 236,232,894	$ 1,847,341	$ 5,456,982	$ 6,983,044	60.48	$ 14,287,368
Riverview	111,211,587	869,675	2,169,824	3,855,706	62.00	6,895,204
Rochester	65,532,000	359,115	851,916	2,490,216	56.48	3,701,247
Rockford	21,083,200	101,199	295,179	701,016	52.05	1,097,395
Rockwood	22,677,428	177,337	442,211	901,201	67.06	1,520,749
Rogers City	28,364,627	162,810	482,191	798,748	50.90	1,443,749
Romulus	227,937,820	1,782,474	2,781,988	9,285,899	60.76	13,850,360
Roosevelt Park	32,936,100	217,378	329,361	1,228,517	53.90	1,775,256
Rose City	4,307,516	22,399	77,592	126,555	52.59	226,546
Roseville	319,797,454	1,678,937	5,689,197	12,993,305	63.67	20,361,438
Royal Oak	473,617,725	2,595,425	8,675,364	21,830,294	69.89	33,101,083
Saginaw	510,596,050	2,859,338	5,356,164	18,851,508	53.01	27,067,010
Saline	69,070,000	446,883	690,700	2,529,343	53.09	3,666,926
Sandusky	14,267,440	72,337	263,948	348,982	47.96	684,266
Sault Ste. Marie	67,953,774	414,518	1,617,300	2,035,895	59.86	4,067,713
Scottville	6,792,836	35,757	141,637	197,875	55.24	375,270
South Haven	35,856,789	238,448	554,346	1,012,954	50.36	1,805,748
South Lyon	32,434,100	177,739	421,645	1,161,627	54.30	1,761,011
Southfield	918,149,100	5,031,457	14,377,297	35,455,136	59.75	54,863,890
Southgate	190,929,905	1,493,072	4,582,366	6,950,820	68.23	13,026,258
Springfield	37,920,141	234,726	686,359	1,542,543	64.97	2,463,627
St. Clair	37,590,065	210,128	745,035	1,116,613	55.11	2,071,776
St. Clair Shores	460,294,314	2,416,545	7,917,062	19,628,821	65.09	29,962,428
St. Ignace	16,706,680	81,027	275,493	463,610	49.09	820,131
St. Johns	44,501,357	253,658	845,526	1,349,726	55.03	2,448,910

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
St. Joseph	$ 97,177,973	$ 536,908	$ 1,736,065	$ 4,027,010	64.83	$ 6,299,984
St. Louis	16,885,608	74,297	253,284	587,450	54.19	915,031
Stambaugh	4,612,274	38,743	92,245	137,446	58.20	268,434
Standish	9,767,631	48,212	158,309	263,854	48.16	470,375
Stanton	4,740,782	26,074	56,892	137,786	46.56	220,752
Stephenson	5,213,813	31,080	13,172	135,559	34.49	179,810
Sterling Heights	909,621,200	4,775,511	11,524,901	38,856,859	60.64	55,157,271
Sturgis	69,489,586	330,770	729,641	2,259,037	47.77	3,319,448
Swartz Creek	52,683,764	312,322	819,765	1,881,338	57.20	3,013,426
Sylvan Lake	15,886,700	87,059	203,351	601,282	56.13	891,692
Tawas City	13,176,821	62,313	198,970	299,774	42.58	561,057
Taylor	420,445,463	3,287,884	9,481,145	16,170,333	68.83	28,939,361
Tecumseh	42,556,300	244,699	553,232	1,452,873	52.89	2,250,803
Three Rivers	43,992,800	209,406	621,266	1,494,391	52.85	2,325,063
Traverse City	137,335,798	906,366	1,906,801	4,170,066	50.85	6,983,232
Trenton	388,206,627	3,035,776	6,095,742	16,366,831	65.68	25,498,348
Troy	785,835,801	4,306,380	10,530,200	30,901,949	58.20	45,738,529
Utica	31,897,395	167,461	574,312	1,386,739	66.73	2,128,513
Vassar	15,930,405	79,266	296,729	422,793	50.14	798,788
Wakefield	6,453,825	52,082	118,363	225,884	61.41	396,329
Walker	122,365,360	587,354	703,601	4,200,927	44.88	5,491,881
Walled Lake	33,167,250	181,757	742,946	1,229,842	64.96	2,154,545
Warren	1,432,797,416	7,522,186	17,729,589	60,833,497	60.08	86,085,273
Watervliet	11,330,435	62,601	181,287	346,995	52.15	590,882
Wayland	11,080,451	74,239	204,998	356,125	57.34	635,362

TABLE X-17. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate	Total Taxes
Wayne	$167,432,816	$ 1,309,325	$ 3,129,674	$ 7,240,479	69.76	$11,679,477
West Branch	11,665,500	60,661	226,311	342,732	53.98	629,704
Westland	415,155,708	3,246,518	8,321,107	18,113,963	71.50	29,681,588
White Cloud	4,999,681	29,248	77,495	146,491	50.65	253,234
Whitehall	22,872,317	150,957	297,340	799,616	54.56	1,247,914
Whittemore	2,089,236	9,880	16,714	53,276	38.23	79,870
Williamston	14,506,052	115,178	278,371	556,452	65.49	950,001
Wixom	90,991,809	498,635	934,061	3,366,555	52.74	4,799,251
Woodhaven	135,240,748	1,057,583	1,762,617	5,584,344	62.15	8,404,544
Wyandotte	234,339,188	1,832,532	4,590,713	10,437,467	71.95	16,860,713
Wyoming	416,747,750	2,000,389	3,959,104	14,651,380	49.46	20,610,872
Yale	9,223,369	51,559	101,457	262,359	45.03	415,374
Ypsilanti	121,064,400	782,693	3,106,513	5,076,240	74.06	8,965,446
Zeeland	41,167,720	182,785	485,783	1,357,464	49.21	2,026,032
Zilwaukee	12,438,985	69,658	218,802	453,534	59.65	741,994
TOTAL	34,863,658,871	224,520,296	620,978,965	1,321,632,375	62.16	2,167,131,635

SOURCE: Michigan State Tax Commission, special release.

a. Taxes per $1,000 of state equalized valuation.

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Alcona: total	3,004	2,040	8,394	2,743	23,594	2,288	2,565
Under $5,000	1,229	552	2,587	531	2,751	543	100
$5,000-under $10,000	847	650	2,564	866	6,144	819	494
$10,000-under $15,000	548	486	1,919	803	6,676	546	714
$15,000 or more	380	352	1,324	543	8,023	380	1,257
Alger: total	3,140	1,930	8,588	3,246	26,867	2,450	3,112
Under $5,000	1,155	334	2,034	428	2,259	490	89
$5,000-under $10,000	808	545	2,242	812	6,060	784	547
$10,000-under $15,000	733	637	2,599	1,182	9,076	732	993
$15,000 or more	444	414	1,713	824	9,472	444	1,483
Allegan: total	26,726	16,547	73,420	27,675	276,569	22,089	35,302
Under $5,000	8,131	1,922	13,593	2,473	17,969	3,654	729
$5,000-under $10,000	6,230	3,416	15,548	5,106	46,795	6,086	4,448
$10,000-under $15,000	6,179	5,294	21,283	9,535	77,103	6,167	8,454
$15,000 or more	6,186	5,915	22,996	10,561	134,702	6,182	21,671
Alpena: total	11,436	7,073	32,170	12,661	115,875	9,223	14,499
Under $5,000	3,776	947	6,330	1,178	8,081	1,661	311
$5,000-under $10,000	2,416	1,443	6,440	2,270	18,274	2,328	1,660
$10,000-under $15,000	2,7[illegible]	2,324	9,701	4,503	34,257	2,744	3,718
$15,000 or more	2,49[illegible]	2,359	9,699	4,710	55,263	2,490	8,810
Antrim: total	5,615	3,502	15,408	5,356	49,314	4,373	5,811
Under $5,000	1,989	599	3,615	743	4,154	812	153
$5,000-under $10,000	1,669	1,122	4,814	1,637	12,265	1,611	1,019
$10,000-under $15,000	1,094	958	3,843	1,657	13,459	1,089	1,445
$15,000 or more	863	823	3,136	1,319	19,436	861	3,194

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Arenac: total	4,511	2,880	12,657	4,704	41,885	3,615	5,217
Under $5,000	1,574	521	2,995	632	3,352	715	138
$5,000-under $10,000	1,200	786	3,373	1,199	8,768	1,168	762
$10,000-under $15,000	893	778	3,054	1,337	11,079	890	1,244
$15,000 or more	844	795	3,235	1,536	18,686	842	3,073
Baraga: total	2,705	1,638	7,411	2,797	24,519	2,127	3,157
Under $5,000	981	288	1,726	296	2,166	426	75
$5,000-under $10,000	653	393	1,727	617	4,848	633	456
$10,000-under $15,000	666	569	2,342	1,083	8,238	663	923
$15,000 or more	405	388	1,616	801	9,267	405	1,703
Barry: total	14,305	9,275	40,146	15,127	154,912	12,014	20,391
Under $5,000	4,114	1,128	7,255	1,374	8,609	1,905	365
$5,000-under $10,000	3,232	1,897	8,285	2,708	24,270	3,157	2,251
$10,000-under $15,000	3,266	2,730	11,090	4,885	40,564	3,263	4,476
$15,000 or more	3,693	3,520	13,516	6,160	81,469	3,689	13,299
Bay: total	44,506	26,548	120,831	45,854	516,573	37,648	71,688
Under $5,000	12,369	2,272	18,484	2,471	27,912	5,766	1,116
$5,000-under $10,000	9,428	4,682	22,169	6,575	70,488	9,203	6,819
$10,000-under $15,000	10,142	7,905	33,157	14,703	126,064	10,122	14,196
$15,000 or more	12,567	11,689	47,021	22,105	292,109	12,557	49,557
Benzie: total	3,729	2,230	10,055	3,401	31,786	2,820	3,739
Under $5,000	1,451	433	2,690	571	3,144	573	103
$5,000-under $10,000	1,052	701	3,063	1,039	7,793	1,023	650
$10,000-under $15,000	647	559	2,163	881	7,884	645	860
$15,000 or more	579	537	2,139	910	12,965	579	2,126

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Berrien: total	67,150	37,772	175,125	63,739	729,690	54,469	100,530
Under $5,000	21,527	3,816	33,728	5,885	45,783	9,225	1,758
$5,000-under $10,000	14,570	7,006	34,995	11,349	108,846	14,236	10,499
$10,000-under $15,000	13,575	10,692	43,483	18,433	168,980	13,543	19,169
$15,000 or more	17,478	16,258	62,919	28,072	406,081	17,465	69,104
Branch: total	13,825	8,359	37,082	13,267	141,180	11,445	18,090
Under $5,000	4,212	1,022	7,189	1,299	9,191	1,934	386
$5,000-under $10,000	3,603	1,963	9,120	3,034	27,170	3,513	2,574
$10,000-under $15,000	2,783	2,313	9,142	3,810	34,345	2,774	3,857
$15,000 or more	3,227	3,061	11,631	5,124	70,474	3,224	11,273
Calhoun: total	53,892	30,673	138,504	48,486	621,074	44,893	86,204
Under $5,000	15,591	2,841	24,394	4,021	34,268	6,851	1,320
$5,000-under $10,000	11,373	5,062	25,952	7,695	85,031	11,144	8,325
$10,000-under $15,000	10,625	7,763	31,701	12,589	132,277	10,603	15,454
$15,000 or more	16,303	15,007	56,457	24,181	369,498	16,295	61,105
Cass: total	17,082	10,381	45,906	16,617	176,051	14,079	23,085
Under $5,000	5,192	1,244	8,824	1,660	10,922	2,310	445
$5,000-under $10,000	4,286	2,376	10,986	3,711	31,945	4,179	2,947
$10,000-under $15,000	3,676	3,068	12,280	5,301	45,582	3,665	5,066
$15,000 or more	3,928	3,693	13,816	5,945	87,602	3,925	14,627
Charlevoix: total	7,242	4,287	19,481	7,161	65,607	5,680	7,959
Under $5,000	2,566	625	4,272	827	5,449	1,086	215
$5,000-under $10,000	2,023	1,283	5,638	2,014	14,884	1,944	1,295
$10,000-under $15,000	1,429	1,220	4,960	2,200	17,694	1,426	1,937
$15,000 or more	1,224	1,159	4,611	2,120	27,580	1,224	4,512

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of return	Amount ($000)
Cheboygan: total	6,948	4,240	19,181	6,978	58,386	5,208	6,759
Under $5,000	2,748	831	4,929	959	5,733	1,083	201
$5,000-under $10,000	1,915	1,343	5,733	2,085	14,007	1,845	1,129
$10,000-under $15,000	1,300	1,140	4,734	2,160	15,943	1,295	1,676
$15,000 or more	985	926	3,785	1,774	22,703	985	3,753
Chippewa: total	12,544	7,510	33,339	12,196	106,664	10,023	12,449
Under $5,000	4,721	1,297	7,981	1,496	11,281	2,308	473
$5,000-under $10,000	3,642	2,513	10,413	3,895	26,647	3,544	2,265
$10,000-under $15,000	2,305	1,954	7,858	3,468	28,258	2,295	3,171
$15,000 or more	1,876	1,746	7,087	3,337	40,478	1,876	6,540
Clare: total	6,811	4,324	18,709	6,723	58,396	5,163	7,026
Under $5,000	2,726	930	5,143	1,145	5,834	1,147	210
$5,000-under $10,000	1,803	1,278	5,194	1,769	13,034	1,743	1,074
$10,000-under $15,000	1,213	1,092	4,373	1,985	14,980	1,208	1,587
$15,000 or more	1,069	1,024	3,999	1,824	24,548	1,065	4,155
Clinton: total	19,678	12,284	56,365	22,662	220,365	16,703	27,631
Under $5,000	5,262	1,081	8,409	1,386	11,250	2,426	476
$5,000-under $10,000	4,330	2,289	10,886	3,720	32,446	4,206	3,023
$10,000-under $15,000	4,477	3,617	15,623	7,291	55,706	4,465	5,992
$15,000 or more	5,609	5,297	21,447	10,265	120,963	5,606	18,140
Crawford; total	3,252	1,854	8,520	2,991	28,644	2,454	3,444
Under $5,000	1,279	330	2,227	459	2,682	499	92
$5,000-under $10,000	828	485	2,153	665	6,106	811	548
$10,000-under $15,000	576	496	2,013	899	7,134	575	768
$15,000 or more	569	543	2,127	968	12,722	569	2,036

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Delta: total	13,135	8,109	36,726	14,282	131,032	10,561	16,728
Under $5,000	4,480	1,133	7,369	1,230	9,916	2,012	391
$5,000-under $10,000	2,794	1,724	7,470	2,581	20,927	2,702	1,906
$10,000-under $15,000	3,008	2,586	10,764	5,012	37,752	3,001	4,143
$15,000 or more	2,853	2,666	11,123	5,459	62,437	2,846	10,288
Dickinson: total	9,245	5,499	24,524	8,635	94,281	7,519	13,170
Under $5,000	3,109	708	5,061	731	7,033	1,426	262
$5,000-under $10,000	2,198	1,271	5,566	1,670	16,347	2,157	1,534
$10,000-under $15,000	2,045	1,756	6,899	2,985	25,326	2,044	2,842
$15,000 or more	1,893	1,764	7,008	3,249	45,575	1,892	8,532
Eaton: total	27,011	16,820	74,710	28,561	311,747	22,750	40,364
Under $5,000	7,304	1,485	11,343	1,738	14,921	3,217	611
$5,000-under $10,000	5,626	2,870	13,434	4,119	42,262	5,473	4,024
$10,000-under $15,000	5,836	4,714	19,217	8,402	72,624	5,820	7,916
$15,000 or more	8,245	7,751	30,716	14,302	181,940	8,240	27,813
Emmet: total	8,597	4,641	22,163	7,812	79,883	6,585	10,689
Under $5,000	3,446	747	5,563	949	7,409	1,517	284
$5,000-under $10,000	2,159	1,227	5,760	2,005	15,692	2,083	1,363
$10,000-under $15,000	1,459	1,243	5,075	2,229	18,000	1,455	1,947
$15,000 or more	1,533	1,424	5,765	2,629	38,782	1,530	7,095
Genesee: total	161,770	93,096	445,681	176,797	1,911,885	135,640	258,004
Under $5,000	43,578	7,529	66,970	11,271	87,796	18,452	3,510
$5,000-under $10,000	32,285	15,023	78,827	26,113	241,710	31,400	22,337
$10,000-under $15,000	37,409	26,159	118,267	53,049	466,936	37,327	52,451
$15,000 or more	48,498	44,385	181,617	86,364	1,115,443	48,461	179,706

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Gladwin: total	5,365	3,665	15,350	5,671	46,924	4,209	5,239
Under $5,000	1,921	753	3,833	855	4,207	826	146
$5,000-under $10,000	1,530	1,156	4,579	1,651	11,402	1,475	921
$10,000-under $15,000	1,072	955	3,857	1,781	13,162	1,066	1,377
$15,000 or more	842	801	3,081	1,384	18,153	842	2,795
Gogebic: total	7,479	4,256	19,221	6,590	62,696	5,874	7,481
Under $5,000	2,800	720	4,718	739	6,286	1,236	241
$5,000-under $10,000	2,029	1,173	5,080	1,614	14,995	1,991	1,446
$10,000-under $15,000	1,694	1,478	5,864	2,608	20,743	1,692	2,353
$15,000 or more	956	885	3,559	1,629	20,672	955	3,441
Grand Traverse: total	18,633	10,470	48,013	16,832	190,386	14,975	25,091
Under $5,000	6,444	1,224	9,796	1,477	13,580	2,955	568
$5,000-under $10,000	4,495	2,422	10,932	3,310	33,123	4,354	3,058
$10,000-under $15,000	3,546	2,936	11,779	4,933	43,809	3,525	4,756
$15,000 or more	4,148	3,888	15,506	7,112	99,874	4,141	16,709
Gratiot: total	13,772	8,933	39,352	15,111	146,644	11,447	19,313
Under $5,000	4,127	1,124	7,156	1,349	9,076	1,901	359
$5,000-under $10,000	3,419	2,152	9,602	3,503	25,857	3,330	2,328
$10,000-under $15,000	3,094	2,710	10,964	4,937	38,087	3,089	4,141
$15,000 or more	3,132	2,947	11,630	5,322	73,624	3,127	12,485
Hillsdale: total	13,938	8,981	38,815	14,077	140,561	11,509	18,000
Under $5,000	4,271	1,264	7,799	1,473	9,186	1,967	381
$5,000-under $10,000	3,479	2,120	9,314	3,170	25,754	3,368	2,330
$10,000-under $15,000	3,216	2,762	10,855	4,630	39,892	3,204	4,457
$15,000 or more	2,972	2,835	10,847	4,804	65,729	2,970	10,832

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Houghton: total	11,636	6,501	29,670	9,983	98,283	9,210	12,158
Under $5,000	4,529	1,229	7,600	1,151	10,729	2,178	406
$5,000-under $10,000	3,368	2,071	8,802	2,848	24,753	3,301	2,306
$10,000-under $15,000	2,174	1,792	7,423	3,287	26,514	2,168	3,042
$15,000 or more	1,565	1,409	5,845	2,697	36,287	1,563	6,404
Huron: total	13,112	7,988	36,657	13,380	127,103	10,744	16,683
Under $5,000	4,436	1,376	8,359	1,624	9,023	2,187	420
$5,000-under $10,000	3,675	2,152	9,845	3,271	27,228	3,567	2,534
$10,000-under $15,000	2,504	2,124	8,813	3,944	30,615	2,496	3,399
$15,000 or more	2,497	2,336	9,640	4,541	60,237	2,494	10,330
Ingham: total	97,741	51,736	242,338	84,829	1,100,597	80,546	151,799
Under $5,000	30,513	4,908	44,248	6,575	64,416	13,872	2,690
$5,000-under $10,000	21,277	9,234	46,552	13,391	159,089	20,800	15,647
$10,000-under $15,000	19,007	13,235	56,075	22,610	235,307	18,948	27,037
$15,000 or more	26,944	24,359	95,463	42,253	641,785	26,926	106,425
Ionia: total	16,332	10,244	46,398	18,262	166,549	13,616	20,817
Under $5,000	4,783	1,230	8,194	1,509	10,024	2,184	416
$5,000-under $10,000	3,958	2,258	10,384	3,679	29,691	3,850	2,779
$10,000-under $15,000	3,939	3,274	13,907	6,480	48,930	3,932	5,386
$15,000 or more	3,652	3,482	13,913	6,594	77,904	3,650	12,236
Iosco: total	9,763	6,311	26,337	9,167	83,540	7,964	9,648
Under $5,000	3,534	1,175	6,343	1,225	8,660	1,812	391
$5,000-under $10,000	3,144	2,342	9,124	3,196	22,911	3,069	1,892
$10,000-under $15,000	1,614	1,407	5,502	2,331	19,773	1,612	2,157
$15,000 or more	1,471	1,387	5,368	2,415	32,196	1,471	5,208

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Iron: total	5,120	3,030	12,923	4,066	42,253	3,983	5,115
Under $5,000	2,137	663	3,778	612	5,097	1,022	201
$5,000-under $10,000	1,308	861	3,493	1,090	9,562	1,286	869
$10,000-under $15,000	988	855	3,185	1,278	12,325	988	1,437
$15,000 or more	687	651	2,467	1,086	15,269	687	2,608
Isabella: total	13,904	8,453	37,491	14,111	143,144	11,147	19,216
Under $5,000	4,727	1,267	7,788	1,484	9,760	2,083	399
$5,000-under $10,000	3,348	2,042	8,723	3,037	25,053	3,247	2,308
$10,000-under $15,000	2,644	2,195	8,879	3,873	32,600	2,637	3,631
$15,000 or more	3,185	2,949	12,101	5,717	75,731	3,180	12,878
Jackson: total	54,394	31,576	143,878	52,729	631,858	45,532	88,062
Under $5,000	15,630	2,667	23,775	3,599	35,133	7,031	1,355
$5,000-under $10,000	11,331	5,238	26,135	7,944	84,206	11,092	8,238
$10,000-under $15,000	11,457	8,863	36,049	15,048	142,982	11,436	16,394
$15,000 or more	15,976	14,808	57,919	26,138	369,537	15,973	62,075
Kalamazoo: total	76,708	42,019	192,803	67,551	914,774	64,254	135,334
Under $5,000	22,724	3,280	32,075	4,037	50,164	10,625	2,143
$5,000-under $10,000	16,562	6,889	35,266	9,858	123,749	16,252	12,566
$10,000-under $15,000	14,696	10,953	44,174	17,588	182,762	14,671	21,251
$15,000 or more	22,726	20,897	81,288	36,068	558,099	22,706	99,374
Kalkaska: total	2,935	1,885	8,073	2,908	25,658	2,269	2,967
Under $5,000	1,058	349	1,984	464	2,180	429	79
$5,000-under $10,000	809	556	2,312	796	5,998	775	496
$10,000-under $15,000	608	542	2,089	896	7,497	606	813
$15,000 or more	460	438	1,688	752	9,983	459	1,579

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Kent: total	164,401	89,284	422,182	153,262	1,830,962	136,224	255,496
Under $5,000	50,703	7,440	74,216	10,443	113,162	23,360	4,544
$5,000-under $10,000	37,474	16,016	82,148	24,988	278,896	36,765	27,767
$10,000-under $15,000	33,679	26,136	106,965	45,110	419,581	33,595	47,341
$15,000 or more	42,545	39,692	158,853	73,621	1,019,323	42,504	175,844
Keweenaw: total	648	398	1,562	420	5,155	516	678
Under $5,000	263	104	478	58	643	134	25
$5,000-under $10,000	191	124	478	135	1,426	188	140
$10,000-under $15,000	134	116	420	167	1,627	134	193
$15,000 or more	60	54	186	60	1,459	60	320
Lake: total	2,124	1,257	5,557	1,815	15,276	1,547	1,682
Under $5,000	969	366	1,945	445	2,069	411	72
$5,000-under $10,000	605	402	1,722	594	4,395	587	381
$10,000-under $15,000	323	287	1,137	483	3,951	322	437
$15,000 or more	227	202	753	293	4,861	227	792
Lapeer: total	20,060	13,292	59,484	24,467	229,402	16,987	29,009
Under $5,000	5,250	1,374	9,071	1,780	10,884	2,353	441
$5,000-under $10,000	4,357	2,508	11,448	4,031	32,680	4,207	2,957
$10,000-under $15,000	4,673	3,954	16,524	7,733	58,369	4,655	6,159
$15,000 or more	5,780	5,456	22,441	10,923	127,469	5,772	19,452
Leelanau: total	4,960	2,869	13,222	4,592	46,766	3,958	5,841
Under $5,000	1,826	433	2,992	455	3,949	874	164
$5,000-under $10,000	1,289	781	3,482	1,134	9,580	1,244	845
$10,000-under $15,000	940	810	3,402	1,543	11,619	937	1,247
$15,000 or more	905	845	3,346	1,460	21,618	903	3,585

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Lenawee: total	32,267	19,879	87,767	32,255	357,586	27,101	48,279
Under $5,000	8,993	1,941	14,640	2,432	19,311	4,030	771
$5,000-under $10,000	7,315	3,862	17,959	5,659	55,353	7,132	5,345
$10,000-under $15,000	7,636	6,227	24,815	10,516	94,448	7,619	10,582
$15,000 or more	8,323	7,849	30,353	13,648	188,474	8,320	31,581
Livingston: total	27,323	16,960	76,228	29,531	341,480	23,107	46,367
Under $5,000	7,162	1,278	10,803	1,522	14,463	3,105	602
$5,000-under $10,000	5,192	2,536	12,018	3,475	38,599	5,055	3,733
$10,000-under $15,000	5,226	4,039	16,554	6,961	65,446	5,214	7,310
$15,000 or more	9,743	9,107	36,853	17,573	222,972	9,733	34,722
Luce: total	2,180	1,315	5,949	2,190	19,593	1,632	2,427
Under $5,000	840	261	1,527	318	1,577	311	53
$5,000-under $10,000	536	360	1,565	584	4,030	519	337
$10,000-under $15,000	391	303	1,267	532	4,764	389	532
$15,000 or more	413	391	1,590	756	9,222	413	1,505
Mackinac: total	3,921	2,160	10,296	3,623	29,813	2,777	3,536
Under $5,000	1,835	474	3,229	626	3,731	734	128
$5,000-under $10,000	944	661	2,898	1,097	6,961	906	576
$10,000-under $15,000	650	570	2,340	1,081	7,996	645	886
$15,000 or more	492	455	1,829	819	11,125	492	1,946
Macomb: total	261,730	149,803	690,782	264,652	3,377,642	224,242	474,258
Under $5,000	66,421	7,642	88,959	9,823	143,708	29,937	5,851
$5,000-under $10,000	44,551	16,154	88,168	22,517	330,385	43,690	34,327
$10,000-under $15,000	49,220	33,232	140,343	56,382	618,490	49,133	73,379
$15,000 or more	101,538	92,775	373,312	175,930	2,285,059	101,482	360,691

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Manistee: total	8,023	4,739	21,579	7,797	72,440	6,312	8,674
Under $5,000	2,832	690	4,761	792	6,144	1,165	225
$5,000-under $10,000	2,058	1,241	5,369	1,722	15,286	2,020	1,404
$10,000-under $15,000	1,795	1,539	6,288	2,853	22,008	1,791	2,409
$15,000 or more	1,338	1,269	5,161	2,430	29,002	1,336	4,636
Marquette: total	24,289	14,347	63,224	23,073	241,595	20,098	30,684
Under $5,000	8,022	1,715	11,907	1,583	18,878	3,929	821
$5,000-under $10,000	5,726	3,439	14,485	4,816	42,124	5,641	3,889
$10,000-under $15,000	5,392	4,407	17,455	7,480	67,033	5,383	7,708
$15,000 or more	5,149	4,786	19,377	9,194	113,560	5,145	18,266
Mason: total	9,098	5,426	23,861	8,357	83,130	7,118	10,349
Under $5,000	3,335	819	5,503	976	6,985	1,416	272
$5,000-under $10,000	2,270	1,436	6,162	2,125	16,847	2,214	1,515
$10,000-under $15,000	1,805	1,573	6,129	2,607	22,375	1,800	2,485
$15,000 or more	1,688	1,598	6,067	2,649	36,923	1,688	6,077
Mecosta: total	9,061	5,708	24,416	8,810	80,960	7,119	9,585
Under $5,000	3,391	1,116	6,104	1,258	7,393	1,520	284
$5,000-under $10,000	2,383	1,609	6,502	2,220	17,478	2,316	1,527
$10,000-under $15,000	1,661	1,455	5,690	2,477	20,578	1,658	2,279
$15,000 or more	1,626	1,528	6,120	2,855	35,511	1,625	5,495
Menominee: total	9,179	5,476	24,582	9,014	81,750	7,519	10,266
Under $5,000	3,130	841	5,406	1,009	6,798	1,537	302
$5,000-under $10,000	2,803	1,702	7,371	2,576	20,702	2,742	1,925
$10,000-under $15,000	1,923	1,690	6,758	3,056	23,666	1,919	2,638
$15,000 or more	1,323	1,243	5,047	2,373	30,584	1,321	5,401

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Midland: total	23,891	15,249	67,759	26,692	335,013	20,040	52,389
Under $5,000	6,455	1,169	9,516	1,360	13,479	2,753	575
$5,000-under $10,000	5,067	3,131	13,466	4,589	38,288	4,935	3,421
$10,000-under $15,000	4,193	3,423	14,102	6,221	51,946	4,183	5,703
$15,000 or more	8,176	7,526	30,675	14,522	231,300	8,169	42,690
Missaukee: total	2,893	1,920	8,248	3,100	24,436	2,321	2,743
Under $5,000	1,062	395	2,118	530	2,490	512	91
$5,000-under $10,000	878	637	2,611	955	6,459	857	551
$10,000-under $15,000	569	520	2,068	946	7,002	568	755
$15,000 or more	384	368	1,451	669	8,485	384	1,346
Monroe: total	44,563	27,310	124,352	48,835	539,403	37,923	74,349
Under $5,000	11,729	2,051	17,724	2,531	25,517	5,262	1,023
$5,000-under $10,000	8,127	3,731	18,564	5,580	60,417	7,979	6,024
$10,000-under $15,000	9,817	7,630	31,340	13,462	123,474	9,800	14,227
$15,000 or more	14,890	13,898	56,724	27,262	329,995	14,882	53,075
Montcalm: total	15,235	9,723	42,480	15,970	147,105	12,518	18,405
Under $5,000	4,876	1,469	8,676	1,650	10,896	2,281	431
$5,000-under $10,000	4,177	2,619	11,436	4,116	31,347	4,062	2,831
$10,000-under $15,000	3,249	2,829	11,566	5,301	40,130	3,243	4,376
$15,000 or more	2,933	2,806	10,802	4,903	64,732	2,932	10,767
Montmorency: total	2,420	1,582	6,646	2,204	18,249	1,780	1,981
Under $5,000	1,029	437	2,122	491	2,208	427	83
$5,000-under $10,000	735	548	2,173	704	5,315	699	420
$10,000-under $15,000	375	333	1,330	567	4,569	373	494
$15,000 or more	281	264	1,021	442	6,157	281	984

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax Number of returns	Total tax Amount ($000)
Muskegon: total	55,558	32,284	149,729	57,182	583,685	46,038	75,375
Under $5,000	16,795	3,199	26,290	4,611	38,414	7,580	1,433
$5,000-under $10,000	13,282	6,688	32,393	10,899	99,313	13,009	9,382
$10,000-under $15,000	12,391	10,115	42,160	18,995	153,661	12,367	16,850
$15,000 or more	13,090	12,282	48,886	22,677	292,297	13,082	47,710
Newaygo: total	10,400	6,707	29,205	11,122	99,743	8,429	12,004
Under $5,000	3,382	1,043	6,056	1,214	7,531	1,513	285
$5,000-under $10,000	2,759	1,802	7,642	2,770	20,612	2,670	1,823
$10,000-under $15,000	2,339	2,034	8,416	3,913	28,982	2,331	3,118
$15,000 or more	1,920	1,828	7,091	3,225	42,618	1,915	6,778
Oakland: total	398,689	219,421	1,029,964	373,732	5,962,434	334,066	1,020,975
Under $5,000	109,407	12,303	147,668	16,115	189,265	47,006	9,424
$5,000-under $10,000	66,711	24,325	136,823	33,709	495,423	64,925	50,080
$10,000-under $15,000	67,012	43,191	187,163	71,744	835,282	66,781	98,683
$15,000 or more	155,559	139,602	558,310	252,164	4,442,464	155,354	862,788
Oceana: total	6,708	4,376	19,461	7,605	61,904	5,296	7,362
Under $5,000	2,328	759	4,380	957	4,948	1,000	194
$5,000-under $10,000	1,811	1,260	5,343	2,019	13,549	1,731	1,175
$10,000-under $15,000	1,387	1,234	5,105	2,398	17,045	1,384	1,826
$15,000 or more	1,182	1,123	4,633	2,231	26,362	1,181	4,167
Ogemaw: total	4,919	3,120	13,327	4,548	35,930	3,790	5,090
Under $5,000	1,960	701	3,732	759	1,710	876	161
$5,000-under $10,000	1,387	993	3,940	1,267	10,038	1,345	858
$10,000-under $15,000	828	722	2,806	1,176	10,192	826	1,134
$15,000 or more	744	704	2,849	1,346	17,410	743	2,937

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Ontonagon: total	3,786	2,398	10,651	4,100	36,061	3,136	4,285
Under $5,000	1,142	302	1,909	279	2,495	509	95
$5,000-under $10,000	845	539	2,280	780	6,386	828	595
$10,000-under $15,000	1,190	988	4,081	1,867	14,564	1,190	1,640
$15,000 or more	609	569	2,381	1,174	12,616	609	1,955
Osceola: total	5,773	3,805	16,534	6,358	51,294	4,696	6,000
Under $5,000	1,892	653	3,523	750	4,179	871	180
$5,000-under $10,000	1,794	1,228	5,274	1,999	13,365	1,740	1,157
$10,000-under $15,000	1,202	1,086	4,339	1,990	14,808	1,200	1,616
$15,000 or more	885	838	3,398	1,619	18,942	885	3,047
Oscoda: total	1,987	1,279	5,455	1,813	14,977	1,508	1,587
Under $5,000	873	365	1,814	416	2,058	413	72
$5,000-under $10,000	583	437	1,736	567	4,271	566	353
$10,000-under $15,000	320	276	1,146	504	3,861	319	417
$15,000 or more	211	201	759	326	4,787	210	745
Otsego: total	5,091	3,020	14,002	5,386	46,824	3,940	5,737
Under $5,000	1,884	463	3,233	708	3,855	765	142
$5,000-under $10,000	1,311	822	3,617	1,279	9,775	1,282	855
$10,000-under $15,000	979	854	3,557	1,671	11,994	977	1,252
$15,000 or more	917	881	3,595	1,728	21,200	916	3,488
Ottawa: total	51,087	31,673	141,318	54,490	575,583	42,931	76,600
Under $5,000	14,506	2,509	21,239	2,700	31,536	6,636	1,235
$5,000-under $10,000	10,895	5,661	25,872	8,068	81,929	10,649	7,906
$10,000-under $15,000	11,880	10,294	41,632	18,897	148,008	11,849	15,750
$15,000 or more	13,806	13,209	52,575	24,825	314,110	13,797	51,709

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Presque Isle: total	4,556	2,931	13,195	5,165	42,434	3,653	5,053
Under $5,000	1,569	552	3,036	680	3,507	728	134
$5,000-under $10,000	1,163	752	3,322	1,189	8,505	1,106	732
$10,000-under $15,000	968	832	3,461	1,604	11,999	964	1,319
$15,000 or more	856	795	3,376	1,692	18,423	855	2,868
Roscommon: total	5,362	3,323	13,860	4,092	41,382	3,949	4,650
Under $5,000	2,274	797	4,261	784	4,867	924	156
$5,000-under $10,000	1,570	1,148	4,410	1,229	11,238	1,512	930
$10,000-under $15,000	822	727	2,671	996	10,173	818	1,136
$15,000 or more	696	651	2,518	1,083	15,104	695	2,428
Saginaw: total	81,426	46,917	223,282	87,984	960,317	68,219	131,538
Under $5,000	22,686	3,703	34,532	5,645	49,092	9,949	1,897
$5,000-under $10,000	15,912	7,107	36,955	11,532	118,131	15,492	11,376
$10,000-under $15,000	18,394	13,543	59,602	26,881	230,781	18,360	26,170
$15,000 or more	24,434	22,564	92,193	43,926	562,313	24,418	92,095
St. Clair: total	48,002	28,250	130,531	49,059	529,070	39,351	71,725
Under $5,000	14,841	2,972	23,641	3,860	31,666	6,503	1,255
$5,000-under $10,000	10,017	5,142	24,582	7,671	74,125	9,760	6,923
$10,000-under $15,000	10,220	8,158	34,020	14,965	127,337	10,186	14,082
$15,000 or more	12,924	11,978	48,288	22,563	295,942	12,902	49,465
St. Joseph: total	19,484	12,023	52,526	18,690	196,926	16,049	25,583
Under $5,000	5,999	1,484	10,314	1,860	11,958	2,702	525
$5,000-under $10,000	5,012	2,880	13,050	4,441	37,937	4,889	3,571
$10,000-under $15,000	4,135	3,543	13,739	5,753	50,880	4,128	5,690
$15,000 or more	4,338	4,116	15,423	6,636	96,151	4,330	15,797

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Sanilac: total	13,493	8,620	38,192	14,266	126,971	10,814	16,135
Under $5,000	4,656	1,529	9,009	2,006	9,623	2,110	400
$5,000-under $10,000	3,642	2,386	10,306	3,675	26,862	3,523	2,382
$10,000-under $15,000	2,710	2,342	9,528	4,278	33,400	2,699	3,671
$15,000 or more	2,485	2,363	9,349	4,307	57,086	2,482	9,682
Schoolcraft: total	3,019	1,829	8,209	2,962	25,552	2,261	3,074
Under $5,000	1,200	376	2,193	432	2,521	470	86
$5,000-under $10,000	774	497	2,228	818	5,730	749	488
$10,000-under $15,000	626	556	2,201	982	7,757	624	853
$15,000 or more	419	400	1,587	730	9,544	418	1,647
Shiawassee: total	24,027	15,359	68,777	27,364	269,799	20,176	36,357
Under $5,000	6,531	1,518	10,842	1,960	13,983	2,860	551
$5,000-under $10,000	5,173	2,796	12,844	4,248	38,561	5,015	3,554
$10,000-under $15,000	5,968	5,025	20,995	9,721	74,627	5,952	7,969
$15,000 or more	6,355	6,020	24,096	11,435	142,628	6,349	24,283
Tuscola: total	18,042	11,894	53,020	21,320	202,528	15,356	26,626
Under $5,000	4,808	1,280	8,424	1,656	10,518	2,242	440
$5,000-under $10,000	4,053	2,344	10,644	3,649	30,558	3,948	2,855
$10,000-under $15,000	4,442	3,751	15,705	7,301	55,271	4,430	6,065
$15,000 or more	4,739	4,519	18,247	8,714	106,181	4,736	17,266
Van Buren: total	21,570	12,853	58,217	21,421	206,770	17,174	25,834
Under $5,000	7,361	1,876	12,782	2,506	15,054	3,121	590
$5,000-under $10,000	5,314	3,045	13,875	4,749	39,653	5,175	3,677
$10,000-under $15,000	4,473	3,758	15,303	6,764	55,187	4,459	6,072
$15,000 or more	4,422	4,174	16,257	7,402	96,876	4,419	15,495

TABLE X-18. COMPARATIVE FEDERAL INCOME TAX STATISTICS, BY ADJUSTED GROSS INCOME CLASS, MICHIGAN COUNTIES: 1974 RETURNS (cont.)

County and adjusted gross income class	Number of returns	Number of joint returns	Number of exemptions	Dependent exemptions	Adjusted gross income ($000)	Total tax	
						Number of returns	Amount ($000)
Washtenaw: total	96,508	48,151	227,940	76,003	1,199,346	80,604	177,483
Under $5,000	28,817	3,728	39,004	4,497	61,654	13,381	2,599
$5,000-under $10,000	19,261	6,682	37,204	9,038	143,683	18,873	15,023
$10,000-under $15,000	17,155	10,254	44,001	15,517	212,860	17,103	26,119
$15,000 or more	31,275	27,487	107,731	46,951	781,149	31,247	133,742
Wayne: total	956,509	467,199	2,382,495	868,058	11,378,726	807,045	1,619,540
Under $5,000	265,372	35,098	401,371	67,905	600,643	120,644	23,139
$5,000-under $10,000	203,084	65,598	426,433	126,901	1,507,418	198,866	152,097
$10,000-under $15,000	195,970	113,031	535,520	215,754	2,434,704	195,629	294,236
$15,000 or more	292,083	253,472	1,019,171	457,498	6,835,961	291,906	1,150,068
Wexford: total	8,251	4,991	22,258	8,192	77,362	6,557	9,925
Under $5,000	2,980	792	5,095	973	6,749	1,345	248
$5,000-under $10,000	2,221	1,399	6,085	2,171	16,545	2,167	1,457
$10,000-under $15,000	1,618	1,428	5,596	2,447	20,036	1,615	2,191
$15,000 or more	1,432	1,372	5,482	2,601	34,032	1,430	6,029
Michigan: total	3,421,204	1,890,680	8,924,739	3,297,309	40,521,115	2,854,975	5,790,072
Under $5,000	991,530	167,861	1,508,192	237,281	2,116,077	444,545	86,019
$5,000-under $10,000	719,954	315,042	1,639,378	498,997	5,356,302	703,127	522,832
$10,000-under $15,000	691,569	486,949	2,096,195	878,202	8,603,416	689,979	995,629
$15,000 or more	1,018,151	920,828	3,680,974	1,682,829	24,445,320	1,017,324	4,185,592

SOURCE: Internal Revenue Service, Individual Income Tax Returns, Small Area Data, Supplemental Statistics of Income, 1974 (Washington, D.C.: 1978), Table 3.

TABLE X-19. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1978 AND 1979

County	Real property		Personal property	
	1978	1979	1978	1979
Alcona	$ 142,464,582	$ 156,268,816	$ 5,534,225	$ 5,748,400
Alger	61,707,611	64,848,754	7,613,221	9,169,264
Allegan	394,615,123	482,607,106	79,093,765	82,736,024
Alpena	207,970,449	226,263,972	42,205,388	43,959,630
Antrim	202,348,112	220,080,240	10,147,224	10,928,575
Arenac	109,376,901	123,245,446	7,949,986	8,560,505
Baraga	43,352,350	48,303,740	5,360,100	5,920,550
Barry	244,336,200	268,014,496	19,607,234	21,120,197
Bay	903,923,535	1,013,394,387	99,563,550	103,789,750
Benzie	114,938,640	128,755,658	6,058,724	6,674,534
Berrien	1,148,751,667	1,329,304,616	192,046,568	198,985,510
Branch	239,938,705	275,142,302	22,400,782	24,249,102
Calhoun	724,272,046	812,790,148	124,015,841	131,579,877
Cass	289,869,883	331,795,965	30,081,921	32,467,154
Charlevoix	214,098,410	246,427,497	20,405,440	22,276,150
Cheboygan	186,051,766	218,527,113	15,283,082	16,659,948
Chippewa	166,957,860	179,655,709	16,446,275	17,401,139
Clare	177,127,330	200,306,515	34,947,013	37,440,522
Clinton	317,153,899	388,524,577	26,168,118	27,544,121
Crawford	98,579,350	110,524,250	8,925,926	9,436,861
Delta	197,266,732	220,332,832	45,707,164	47,173,591
Dickinson	124,455,372	146,733,939	20,029,304	21,794,747
Eaton	532,236,253	592,537,658	45,214,798	49,647,015
Emmet	230,672,246	263,769,805	27,540,161	30,571,519
Genesee	2,580,461,672	2,838,266,118	446,273,787	499,918,312

TABLE X-19. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1978 AND 1979 (cont.)

County	Real property		Personal property	
	1978	1979	1978	1979
Gladwin	$ 145,789,158	$ 162,306,181	$ 8,746,191	$ 9,311,862
Gogebic	80,507,193	92,297,529	20,233,600	20,833,035
Grand Traverse	424,696,940	502,128,597	51,624,451	59,499,223
Gratiot	225,329,882	263,460,767	32,876,757	35,072,456
Hillsdale	248,844,963	301,947,183	19,370,962	20,864,030
Houghton	123,885,383	143,931,336	26,457,942	27,978,438
Huron	427,824,363	496,435,545	26,227,748	26,708,068
Ingham	1,415,210,534	1,537,571,228	218,079,203	251,549,289
Ionia	220,381,125	253,955,680	23,524,575	24,794,550
Iosco	210,023,607	233,260,744	17,591,040	18,696,184
Iron	77,479,916	94,080,206	18,806,150	19,193,663
Isabella	245,250,080	281,093,297	23,601,911	26,587,632
Jackson	773,676,728	851,492,722	124,766,993	132,423,660
Kalamazoo	1,231,688,531	1,415,229,232	200,471,791	208,080,023
Kalkaska	109,708,193	118,643,314	35,421,935	37,184,869
Kent	2,340,641,439	2,656,289,219	335,649,104	372,864,867
Keweenaw	17,850,078	20,916,550	2,945,191	3,362,182
Lake	90,077,403	103,269,257	4,511,894	4,573,672
Lapeer	426,444,148	478,806,889	33,419,180	38,304,313
Leelanau	218,774,243	242,318,044	7,636,956	7,730,076
Lenawee	613,657,583	695,740,224	73,265,701	77,940,910
Livingston	669,039,385	800,135,281	66,263,453	72,996,409
Luce	31,333,250	42,943,984	1,699,870	1,769,444
Mackinac	103,528,650	118,808,037	25,009,552	25,508,615
Macomb	4,474,584,373	4,978,087,938	627,504,572	682,665,072

TABLE X-19. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1978 AND 1979 (cont.)

County	Real property		Personal property	
	1978	1979	1978	1979
Manistee	$ 156,136,906	$ 174,799,641	$ 41,892,643	$ 46,377,120
Marquette	417,081,325	507,212,193	46,981,065	52,228,266
Mason	316,226,581	360,033,341	33,583,244	37,115,028
Mecosta	182,267,424	214,728,232	29,575,525	31,251,220
Menominee	136,781,554	152,399,512	12,556,366	13,436,044
Midland	570,087,826	638,832,344	330,000,574	384,813,422
Missaukee	87,587,815	93,029,512	11,304,173	13,024,013
Monroe	1,119,473,453	1,256,858,686	120,947,361	134,327,216
Montcalm	223,561,592	260,958,570	41,288,272	44,974,284
Montmorency	92,294,368	101,700,655	3,503,858	4,417,770
Muskegon	716,326,993	830,025,967	102,482,161	111,323,413
Newaygo	211,695,522	251,577,014	24,324,884	26,156,170
Oakland	7,780,633,635	8,930,049,562	839,633,582	917,753,579
Oceana	127,173,289	162,199,291	10,060,871	10,712,503
Ogemaw	138,878,569	164,507,765	13,182,727	14,822,074
Ontonagon	70,669,334	75,441,556	6,973,620	8,458,823
Osceola	136,332,634	153,171,810	33,460,736	34,227,213
Oscoda	66,739,036	82,687,561	5,736,076	6,256,465
Otsego	177,393,804	195,526,531	30,553,783	32,412,516
Ottawa	914,192,891	1,038,865,632	113,133,956	166,147,961
Presque Isle	138,561,289	147,235,078	16,946,096	16,762,968
Roscommon	208,621,186	223,793,624	13,103,822	13,886,829
Saginaw	1,366,424,613	1,507,396,144	252,080,544	257,925,562
St. Clair	996,771,773	1,114,343,892	189,557,058	208,534,677
St. Joseph	358,696,455	386,990,543	49,131,336	52,207,620

TABLE X-19. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1978 AND 1979 (cont.)

County	Real property		Personal property	
	1978	1979	1978	1979
Sanilac	324,741,519	394,748,548	19,288,351	20,876,666
Schoolcraft	57,478,512	63,257,032	10,722,971	11,316,627
Shiawassee	377,372,767	419,223,503	33,636,390	35,861,737
Tuscola	381,577,616	440,903,373	29,670,826	30,878,655
Van Buren	368,948,301	427,403,349	44,494,425	48,544,205
Washtenaw	1,821,242,317	2,053,121,992	287,827,460	298,226,535
Wayne	11,521,991,420	12,502,735,940	2,355,588,770	2,480,759,640
Wexford	152,592,092	175,962,939	17,332,047	19,138,386
TOTAL	56,315,708,253	63,273,291,975	8,554,881,892	9,257,400,746

SOURCE: Michigan State Tax Commission, special release.

TABLE X-20. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1978

(Thousands of dollars)

Function	Michigan	United States	Michigan percentage of United States
Department of defense - military	$ 1,952,129	$ 103,709,432	1.9
Atomic energy defense activities	7,908	2,220,729	.4
Defense related activities	--	45,154	--
Foreign information and financial assistance	592	1,243,485	--
Conduct of foreign affairs	487	377,719	.1
Foreign information and exchange activities	9	128,938	--
General science and basic research	24,061	1,237,957	1.9
Space flight	1,717	2,222,520	.1
Space science applications and technology	12,304	1,118,222	1.1
Supporting space activites	242	393,885	.1
Natural resources, environment, and energy	2,102	282,124	.7
Water resources and power	28,028	4,720,652	.6
Conservation/land management	31,588	2,613,510	1.2
Recreational resources	32,479	1,582,722	2.1
Pollution control/abatement	536,388	3,487,435	15.4
Energy	39,968	6,006,674	.7
Other natural resources	9,353	1,249,441	.7
Farm income stabilization	156,578	11,693,802	1.3
Agricultural research/services	16,590	1,276,668	1.3
Mortgage credit and thrift insurance	401	116,861	.3
Payment to the postal service	519,459	14,069,735	3.7
Other advancement and regulation of commerce	20,226	1,364,678	1.5
Ground transportation	354,102	14,461,986	2.4
Air transportation	46,680	3,003,130	1.6
Water transportation	22,755	2,025,159	1.1
Other transportation	2,374	123,239	1.9
Community development	166,432	4,388,743	3.8
Area and regional development	23,538	2,015,282	1.2
Disaster relief and insurance	24,322	2,570,644	.9
Education, manpower, and social services	75,959	2,229,380	3.4
Elementary, secondary, & vocational education	213,628	5,796,481	3.7

TABLE X-20. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1978 (cont.)

(Thousands of dollars)

Function	Michigan	United States	Michigan percentage of United States
Higher education	$ 105,335	$ 3,308,636	3.2
Research/general education aids	19,381	955,739	2.0
Training and employment	300,284	9,161,408	3.3
Other labor services	4,220	374,172	1.1
Social services	149,309	3,068,117	4.9
Health	65,347	2,268,443	2.9
Health care services	1,606,705	39,840,384	4.0
Health research/education	38,359	1,943,589	2.0
Prevention and control of health problems	11,527	622,407	1.9
Health planning/construction	7,532	498,841	1.5
Income security	17,836	644,633	2.8
General retirement and disability insurance	3,964,471	98,126,332	4.0
Federal employment retirement and disability	156,933	11,319,968	1.4
Unemployment insurance	55,559	1,472,227	3.8
Public assistance and other income supplements	815,596	21,750,286	3.7
Income security for veterans	352,042	10,588,501	3.3
Veterans education, training, and rehabilitation	100,825	3,371,897	3.0
Hospital and medical care for veterans	127,732	5,375,782	2.4
Veterans housing	89	62,216	.1
Other veterans benefits/services	10,054	599,814	1.7
Federal law enforcement and prosecution	28,443	2,900,085	1.0
Federal judicial activities	340	12,376	2.7
Federal correctional and rehabilitation activities	7,889	292,051	2.7
Law enforcement assistance	22,935	757,923	3.0
Executive direction/management	--	63,152	--
Central fiscal operations	75,033	2,473,547	3.0
General property/records mgt.	144,481	3,654,016	4.0
Central personnel management	790	160,039	.5
Other general government	2,572	359,772	.7
General revenue sharing	281,200	6,829,759	4.1
Other general purpose fiscal assistance	72,535	1,910,597	3.8
Other interest	7,866	318,153	2.5
TOTAL	12,875,621	432,861,246	3.0

TABLE X-20. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1978 (cont.)

(Thousands of dollars)

Function	Michigan	United States	Michigan percentage of United States
Indirect Federal Support[b]			
Foreign economic and financial assistance	$ 129,376	$ 2,209,080	5.9
Conduct of foreign affairs	509	365,899	.1
Foreign information and exchange activities	1,222	166,828	.7
Energy	54,158	3,476,184	1.6
Farm income stabilization	104,821	5,034,772	2.1
Mortgage credit and thrift insurance	578,951	17,706,930	3.3
Other advancement and regulation of commerce	76,185	2,612,551	2.9
Water transportation	--	681,285	--
Area and regional development	65,027	2,020,445	3.2
Disaster relief and insurance	--	4,107	--
Higher education	9,981	373,747	2.7
Research and general education aids	963	30,187	3.2
Health	--	148	--
Public assistance & other income supplements	23,484	766,439	3.1
Veterans housing	136,279	15,199,908	.9
General property and records management	836	102,275	.8
Interest on public debt	849,103	22,869,504	3.7

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1978 (Washington D.C.: 1979), summary by functions.

a. Less than .05 percent.

b. These figures represent funds that do not directly affect geographic areas and are not included in any totals.

TABLE X-21. OUTLAYS BY THE DEPARTMENT OF DEFENSE IN MICHIGAN COUNTIES HAVING A TOTAL OUTLAY OF $7,500,000 OR MORE, MICHIGAN, AND THE UNITED STATES, BY TYPE OF OUTLAY: FISCAL YEARS 1977 AND 1978

Area	Year	Procurement contracts				
		Military				
		Goods	Services	RDTE[a]	Small[b]	Civil
Macomb	1977	460,504	81,435	148,539	25,021	0
	1978	362,872	63,240	405,605	38,134	337
Wayne	1977	99,180	13,099	4,875	1,545	5,763
	1978	98,509	12,059	2,888	4,089	3,087
Oakland	1977	33,085	2,734	21,352	0	58
	1978	46,092	3,402	42,475	0	1,396
Kent	1977	78,035	1,237	4,236	0	0
	1978	72,360	3,197	3,475	0	235
Muskegon	1977	123,482	3,615	577	0	6,270
	1978	78,217	3,121	249	0	1,874
Marquette	1977	94	3,184	0	7,803	0
	1978	195	6,336	12	9,034	98
Iosco	1977	687	2,784	0	6,271	1,743
	1978	1,237	3,371	0	6,614	0
Calhoun	1977	8,569	5,386	88	839	11
	1978	9,213	4,291	59	843	175
Washtenaw	1977	3,467	2,085	9,706	0	323
	1978	7,856	9,397	9,050	0	160
Kalamazoo	1977	11,233	221	5,742	0	0
	1978	14,248	393	3,970	0	53
Ingham	1977	1,886	190	258	2,649	45
	1978	4,072	228	415	3,075	338
Bay	1977	17,088	12	0	0	29
	1978	19,011	0	11	0	69
Saginaw	1977	2,492	0	19	0	191
	1978	1,878	11	0	0	10,292
Wexford	1977	7,994	362	0	0	0
	1978	9,816	3,504	0	0	32
Jackson	1977	15,938	34	2,008	0	0
	1978	7,865	27	615	0	236
Berrien	1977	3,186	0	5,215	0	594
	1978	3,889	17	2,538	0	3,556
Chippewa	1977	0	1,970	0	4,877	133
	1978	0	475	0	0	12
Ottawa	1977	4,488	100	0	0	240
	1978	4,382	0	0	0	1,434
Michigan	1977	908,974	120,184	207,149	49,005	18,543
	1978	785,171	114,639	472,288	61,789	34,811
United States	1977	29,313,326	7,415,738	7,869,724	5,029,695	1,490,764
	1978	34,590,668	9,781,912	8,638,736	5,432,180	1,691,650

SOURCE: Community Services Administration, Federal Outlays in Michigan, Fiscal Year 1977 (Washington, D.C.: 1977), FIXS 77-23, county summaries section, Michigan summary section, and United States summary section; and Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1978 (Washington, D.C.: 1979), county summaries section, Michigan summary section, and United States summary section.

TABLE X-21. OUTLAYS BY THE DEPARTMENT OF DEFENSE IN MICHIGAN COUNTIES HAVING A TOTAL OUTLAY OF $7,500,000 OR MORE, MICHIGAN, AND THE UNITED STATES, BY TYPE OF OUTLAY: FISCAL YEARS 1977 AND 1978 (cont.)

Pay					
Military					
Active duty	Reserve[c]	Retired	Civilian	Other[d]	Total
7,787	8,705	1,794	105,756	3,808	843,346
8,868	3,550	5,523	109,785	8,528	1,006,442
6,985	5,918	30,002	14,643	0	182,008
6,856	10,147	26,117	31,962	0	195,714
339	931	2,947	625	0	62,071
541	2,737	5,005	855	47	102,550
369	2,352	7,506	2,927	0	96,662
569	2,989	6,629	2,865	10	92,329
125	410	740	654	0	135,873
200	649	1,127	535	3	85,975
46,091	1,015	269	7,408	0	68,176
46,099	852	2,650	7,541	241	73,058
34,408	0	134	6,945	1,793	54,765
34,326	0	2,981	6,515	2,227	57,271
648	2,915	1,253	32,736	0	52,445
658	2,809	1,678	34,301	2	54,637
867	1,314	1,422	864	0	20,048
1,675	1,861	2,211	646	0	32,256
186	295	7,526	546	0	25,749
216	624	6,031	481	1	26,017
1,701	2,349	5,811	1,701	1,498	21,179
2,090	2,264	4,585	4,103	1,183	22,353
83	226	271	482	0	18,191
119	487	974	523	3	21,197
189	552	7,504	253	0	11,200
213	916	3,634	238	2	17,184
82	352	1,663	57	0	10,510
165	335	341	51	2	14,186
31	350	2,768	522	0	21,651
74	644	2,416	911	260	12,548
52	119	475	217	0	9,858
64	256	1,278	210	2	11,810
5,654	212	106	7,771	198	20,921
1,180	229	1,398	5,101	0	8,398
0	74	258	1,129	0	6,289
0	167	674	1,041	5	7,703
110,341	34,620	91,591	195,261	11,384	1,747,052
107,992	40,184	105,298	213,107	16,091	1,951,370
14,672,214	1,403,329	8,101,023	14,311,362	1,700,308	91,307,483
15,544,432	1,742,849	9,175,627	15,721,348	1,357,637	103,677,039

a. Research, development, test, and evaluation work.
b. Contracts of less than $10,000.
c. Includes National Guard.
d. Military prime construction contracts and civil defense grants.

TABLE X-23. FEDERAL OUTLAYS IN MICHIGAN, BY COUNTY: FISCAL YEARS 1977 AND 1978

(In thousands of dollars)

County	Department of defense[a]		Total[b]	
	1977	1978	1977	1978
Alcona	243	900	13,361	15,315
Alger	58	158	11,727	12,616
Allegan	821	889	63,209	74,350
Alpena	466	968	35,754	42,063
Antrim	113	1,397	16,396	18,819
Arenac	4,693	1,309	19,732	20,364
Baraga	145	57	11,363	13,592
Barry	691	1,275	31,678	54,807
Bay	18,191	21,197	154,220	179,015
Benzie	111	1,320	38,230	23,325
Berrien	9,858	11,810	207,399	216,355
Branch	812	973	36,762	40,613
Calhoun	52,445	54,637	238,213	282,496
Cass	1,074	1,306	40,422	51,664
Charlevoix	2,674	5,148	22,299	25,509
Cheboygan	1,733	1,742	28,279	25,458
Chippewa	20,921	8,398	70,530	59,282
Clare	109	215	25,998	28,883
Clinton	252	3,033	93,406	143,870
Crawford	5,521	2,506	14,931	15,132
Delta	1,431	7,042	44,126	51,310
Dickinson	9,919	3,810	55,535	46,563
Eaton	2,426	5,032	57,464	67,311
Emmet	666	900	22,774	28,805
Genesee	10,106	13,332	468,302	506,244
Gladwin	44	171	18,597	20,679
Gogebic	728	473	31,157	35,025
Grand Traverse	3,455	5,303	55,240	64,883
Gratiot	545	774	40,936	45,990
Hillsdale	288	705	36,861	43,527
Houghton	3,368	3,497	62,607	55,111
Huron	2,046	2,409	49,446	55,085
Ingham	21,179	22,353	789,642	854,194
Ionia	355	569	44,372	53,254
Iosco	54,765	57,271	81,322	90,071

TABLE X-23. FEDERAL OUTLAYS IN MICHIGAN, BY COUNTY: FISCAL YEARS 1977 AND 1978 (cont.)

(In thousands of dollars)

County	Department of defense[a]		Total[b]	
	1977	1978	1977	1978
Iron	106	338	22,053	22,606
Isabella	230	482	38,502	46,489
Jackson	21,651	12,548	178,226	191,428
Kalamazoo	25,749	26,017	229,704	251,227
Kalkaska	26	74	9,781	9,519
Kent	96,662	92,326	551,376	543,931
Keweenaw	4	45	4,682	4,854
Lake	27	82	14,073	13,582
Lapeer	1,235	947	45,818	46,766
Leelanau	853	1,310	11,871	12,810
Lenawee	4,807	2,820	104,865	87,938
Livingston	739	1,698	45,953	55,200
Luce	22	81	8,636	9,042
Mackinac	329	210	15,849	17,154
Macomb	843,346	1,006,442	1,373,598	1,533,779
Manistee	395	710	27,572	27,834
Marquette	68,176	73,058	135,154	150,117
Mason	200	481	28,144	30,804
Mecosta	292	752	36,448	36,716
Menominee	502	472	28,769	28,070
Midland	2,003	2,423	54,427	54,860
Missaukee	69	139	8,959	11,700
Monroe	550	5,267	99,416	101,044
Montcalm	4,287	5,431	53,447	65,217
Montmorency	32	127	9,703	11,233
Muskegon	135,873	85,975	315,104	284,139
Newaygo	263	482	32,715	33,799
Oakland	62,071	102,550	887,856	897,771
Oceana	89	446	28,780	31,395
Ogemaw	1,074	467	18,914	19,138
Ontonagon	77	119	13,148	13,453
Osceola	154	163	19,537	23,113
Oscoda	15	41	7,815	8,078
Otsego	58	306	14,508	14,914
Ottawa	6,289	7,703	133,617	132,712

TABLE X-23. FEDERAL OUTLAYS IN MICHIGAN, BY COUNTY: FISCAL YEARS 1977 AND 1978 (cont.)

(In thousands of dollars)

County	Department of defense[a]		Total[b]	
	1977	1978	1977	1978
Presque Isle	422	376	16,998	16,518
Roscommon	90	242	23,029	29,408
Saginaw	11,200	17,184	239,041	309,646
St. Clair	5,318	7,473	153,102	145,261
St. Joseph	1,407	1,600	50,913	59,833
Sanilac	2,761	3,309	39,948	55,804
Schoolcraft	105	261	14,099	12,769
Shiawassee	461	818	58,727	62,228
Tuscola	436	1,085	47,309	52,842
Van Buren	1,779	2,032	72,413	74,185
Washtenaw	20,048	32,256	428,510	372,839
Wayne	182,008	195,714	3,481,063	3,456,990
Wexford	10,510	14,186	41,183	42,487
TOTAL	1,747,052	1,951,370	12,307,641	12,875,621

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1978 (Washington, D.C.: 1979), county summaries section.

a. Dollar outlays by the executive branch only, excludes the judiciary and legislative. Totals include civilian and military pay, contracts, grants, and transfer payments such as Social Security and veterans benefits to individuals and revenue sharing to state and local governments. Most government contracts are reported as obligations or funds legally set aside to be spent, not actual expenditures. Expenditures may take place over a period of years. Also, contracts reflect the location of the prime contractor and are not adjusted to allow for subcontracting.

b. Includes military and civilian payrolls, military retirement pay, and prime contracts for military and civilian functions of the Department of Defense, such as contracts by the U.S. Army Corps of Engineers.

TABLE X-22. NET VALUE OF MILITARY PRIME CONTRACT AWARDS OVER $10,000 IN MICHIGAN, BY PROCUREMENT PROGRAM, FISCAL YEARS: 1975 - 1977

Procurement Program	1975 Value ($000)	1975 Percentage of U.S. Total	1976 Value ($000)	1976 Percentage of U.S. Total	1977 Value ($000)	1977 Percentage of U.S. Total
Airframes & related assemblies & spares	8,404	.2	6,391	.1	9,462	.1
Aircraft engines & related spares	13,385	.6	16,265	.8	15,949	.7
Other aircraft equipment & supplies	32,795	2.6	28,619	2.6	46,034	3.0
Missile & space systems	53,080	1.0	22,790	.4	65,458	1.0
Ships	4,151	.1	2,220	.1	4,906	.1
Combat vehicles	445,352	52.3	583,698	49.8	688,207	55.5
Noncombat vehicles	39,376	9.9	118,194	24.3	158,310	24.0
Weapons	18,253	3.6	8,196	1.4	7,742	1.0
Ammunition	5,388	0	662	.1	914	.1
Electronics & communication equipment	32,034	.6	38,279	.8	72,352	1.0
Petroleum	16,701	.9	21,823	1.2	24,283	1.2
Other fuels & lubricants	235	.4	12	*	0	0
Separately procured containers & handling equipment	0	0	0	0	0	0
Textiles, clothing & equipage	4,641	1.0	873	.2	3,515	.6
Military building supplies	192	.3	499	.8	174	.2
Subsistence	11,980	1.1	15,319	1.5	21,087	1.8
Transportation equipment	0	0	0	0	1,245	28.6
Production equipment	2,129	2.9	1,196	1.1	2,385	2.1
Construction	15,047	.6	17,264	.8	19,702	.8
Construction equipment	15,741	25.8	8,663	11.7	11,069	9.2
Medical & dental supplies & equipment	3,455	2.2	4,093	2.6	7,164	3.6
Photographic equipment & supplies	772	1.4	242	.3	17	*
Materials handling equipment	4,114	10.5	4,837	11.8	6,864	8.0
All other supplies & equipment	28,371	2.5	26,118	2.4	27,667	2.0
Services	21,243	.6	38,907	1.0	49,952	1.3
Total	766,063	2.1	965,160	2.5	1,244,458	2.7

SOURCE: Department of Defense, Military Prime Contract Awards by Region and State, Fiscal Years 1975, 1976, and 1977 (Washington, D.C.: 1978), Table III.

* Less than .05 percent.

TABLE X-24. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1977

Type of government	Number of employees			October payroll ($000)	Average earnings[a]
	Full-time only	Full-time equivalent	Total		
Federal[b]	—	—	53,877	—	—
State	102,910	117,021	144,859	152,842	1,295
Local	287,251	310,506	407,918	384,184	1,244
Counties	41,502	43,146	46,473	44,419	1,031
Municipalities	66,340	69,378	84,652	89,653	1,293
Townships	4,034	5,938	23,696	6,720	1,182
School dist	170,465	186,315	246,980	237,936	1,287
Special dist	4,910	5,729	6,117	5,455	961
TOTAL STATE AND LOCAL	390,161	427,527	552,777	537,026	1,258
Counties					
Bay	n.a.	821	909	758	924
Berrien	n.a.	1,092	1,159	916	843
Calhoun	n.a.	670	673	673	1,005
Genesee	n.a.	2,005	2,057	2,377	1,186
Ingham	n.a.	2,258	2,505	2,206	979
Jackson	n.a.	945	1,001	844	890
Kalamazoo	n.a.	838	896	882	1,054
Kent	n.a.	1,997	2,212	1,894	951
Macomb	n.a.	2,266	2,550	2,353	1,039
Monroe	n.a.	838	885	839	1,004
Muskegon	n.a.	1,120	1,202	1,024	915
Oakland	n.a.	3,541	3,776	4,439	1,256
Ottawa	n.a.	507	526	541	1,066
Saginaw	n.a.	1,377	1,451	1,341	980
St. Clair	n.a.	692	794	829	1,207
Washtenaw	n.a.	1,291	1,510	1,760	1,364
Wayne	n.a.	8,336	8,470	12,689	1,523
Cities					
Ann Arbor	n.a.	1,267	1,463	1,481	1,179
Dearborn	n.a.	1,389	1,694	1,868	1,360
Dearborn Heights	n.a.	385	446	487	1,274
Detroit	n.a.	23,942	24,174	33,671	1,405
Farmington Hills	n.a.	240	341	303	1,271
Flint	n.a.	3,974	4,365	4,677	1,181

TABLE X-24. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1977 (cont.)

Type of government	Number of employees: Full-time only	Full-time equivalent	Total	October payroll ($000)	Average earnings[a]
Cities (cont.)					
Grand Rapids	n.a.	2,208	2,380	2,414	1,094
Kalamazoo	n.a.	1,076	1,142	1,208	1,127
Lansing	n.a.	2,256	2,339	2,992	1,329
Lincoln Park	n.a.	317	391	413	1,317
Livonia	n.a.	787	982	1,120	1,439
Pontiac	n.a.	2,582	2,846	3,130	1,227
Roseville	n.a.	313	337	468	1,500
Royal Oak	n.a.	532	643	720	1,369
Saginaw	n.a.	1,264	1,360	1,351	1,084
St. Clair Shores	n.a.	473	544	559	1,189
Southfield	n.a.	668	847	977	1,478
Sterling Heights	n.a.	533	545	706	1,325
Taylor	n.a.	427	480	565	1,321
Warren	n.a.	1,164	1,323	1,787	1,536
Westland	n.a.	398	440	549	1,382
Wyoming	n.a.	394	525	482	1,219

SOURCES: Bureau of the Census, Public Employment in 1977, Series GE 77, no. 1 (Washington, D.C.: 1978), Tables 6 and 8; and Bureau of the Census, County Government Employment in 1977, Series GE 77, no. 4 (Washington, D.C.: 1978), Table 4; and Bureau of the Census, City Employment in 1977, Series GE 77, no. 2 (Washington, D.C.: 1978), Table 4.

NOTE: Figures include faculty and staff of state and local institutions of higher education. Average earnings by counties and cities are for employees other than teachers.

a. Full-time employees only.
b. Federal civilian employees as of December 1976.
n.a.: not available.

TABLE X-25. NUMBER OF FEDERAL CIVILIAN EMPLOYEES IN MICHIGAN, BY AGENCY, 31 DECEMBER: 1951-1976

Year	Department of Defense	U.S. Postal Service[a]	Veterans Administration	Other agencies[a]	All agencies[a]
1951	15,168	17,121	4,309	7,645	44,243
1952	17,687	18,016	4,141	7,476	47,320
1953	12,040	17,336	4,058	6,978	40,412
1954	9,877	17,298	4,410	6,668	38,253
1955	9,832	17,431	4,447	7,352	39,062
1956	9,665	17,323	4,577	7,651	39,216
1957	9,808	17,383	4,560	8,026	40,777
1958	9,605	18,426	4,504	8,453	40,988
1959	9,645	19,153	4,574	8,401	41,773
1960	9,638	19,438	4,598	8,541	42,215
1961	11,249	20,245	4,674	8,743	44,911
1962	10,880	21,047	4,795	8,621	45,343
1963	11,803	20,426	4,894	9,461	46,584
1964	11,689	19,603	4,927	8,386	44,605
1965	11,614	20,632	4,824	8,710	45,780
1966	12,713	24,189	4,931	9,035	50,868
1967	13,946	25,770	4,962	11,060	55,738
1967	13,302	26,174	4,910	9,140	53,526
1968	13,067	26,646	4,818	9,131	53,662
1969	13,532	26,823	4,659	9,086	54,100
1970	12,015	26,982	4,636	9,803[b]	53,436
1971	12,127	26,163	4,915	10,117[b]	53,322
1972	12,012	24,877	4,998	10,406[b]	52,293
1973	12,061	25,903	4,974	10,705	53,643
1974	12,512	24,889	5,222	11,390	54,013
1975	12,672	24,420	5,542	11,969	54,603
1976	12,857	23,522	5,694	11,804	53,877

SOURCE: U.S. Civil Service Commission, Annual Report, and special release.

NOTE: Data for 1951-1967 refer to 30 June.

a. Distribution by state is partially estimated.

b. Excludes agencies with less than 2,500 employees.

TABLE X-26. FEDERAL CIVILIAN EMPLOYMENT IN MICHIGAN, BY COUNTY: 31 DECEMBER 1976 AND 1977

County	1976	1977	County	1976	1977
Alcona	49	50	Lake	34	37
Alger	53	63	Lapeer	106	112
Allegan	165	166	Leelanau	76	69
Alpena	145	145	Lenawee	202	206
Antrim	45	47	Livingston	125	134
Arenac	48	54	Luce	13	15
Baraga	25	24	Mackinac	62	61
Barry	77	76	Macomb	8,072	7,973
Bay	271	267	Manistee	93	89
Benzie	56	69	Marquette	892	848
Berrien	443	447	Mason	90	85
Branch	88	80	Mecosta	84	86
Calhoun	3,834	3,929	Menominee	74	71
Cass	91	89	Midland	126	136
Charlevoix	50	48	Missaukee	29	32
Cheboygan	52	51	Monroe	203	212
Chippewa	1,097	692	Montcalm	125	132
Clare	43	48	Montmorency	16	16
Clinton	819	922	Muskegon	432	431
Crawford	114	123	Newaygo	75	75
Delta	199	215	Oakland	2,736	3,157
Dickinson	576	559	Oceana	55	53
Eaton	206	199	Ogemaw	44	41
Emmet	106	105	Ontonagon	55	60
Genesee	1,364	410	Osceola	53	50
Gladwin	35	35	Oscoda	28	29
Gogebic	145	150	Otsego	113	117
Grand Traverse	272	284	Ottawa	306	332
Gratiot	114	116	Presque Isle	42	44
Hillsdale	111	105	Roscommon	32	34
Houghton	191	185	Saginaw	1,203	1,326
Huron	136	137	St. Clair	396	101
Ingham	1,173	1,143	St. Joseph	109	54
Ionia	115	120	Sanilac	109	138
Iosco	578	547	Schoolcraft	48	398
Iron	52	53	Shiawassee	144	110
Isabella	132	125	Tuscola	129	134
Jackson	476	465	Van Buren	135	126
Kalamazoo	950	952	Washtenaw	2,668	2,941
Kalkaska	15	17	Wayne	17,924	17,820
Kent	1,919	1,952	Wexford	134	136
Keweenaw	43	54	Michigan	53,877[a]	54,339

SOURCE: U.S. Civil Service Commission, special release.

a. Includes 12 unspecified.

TABLE X-29. MICHIGAN CLASSIFIED CIVIL SERVICE EMPLOYMENT BY COUNTY IN WHICH THE JOBS ARE LOCATED: AVERAGE FOR FISCAL YEAR 1978

County	1978	County	1978
Alcona	31	Leelanau	21
Alger	55	Lenawee	347
Allegan	509	Livingston	1,035
Alpena	230	Luce	796
Antrim	44	Mackinac	224
Arenac	35	Macomb	1,156
Baraga	114	Manistee	83
Barry	108	Marquette	818
Bay	320	Mason	85
Benzie	47	Mecosta	71
Berrien	558	Menominee	68
Branch	1,189	Midland	135
Calhoun	433	Missaukee	24
Cass	131	Monroe	229
Charlevoix	65	Montcalm	79
Cheboygan	105	Montmorency	55
Chippewa	418	Muskegon	1,157
Clare	70	Newaygo	85
Clinton	88	Oakland	2,848
Crawford	148	Oceana	69
Delta	313	Ogemaw	81
Dickinson	81	Ontonagon	51
Eaton	2,288	Osceola	80
Emmet	127	Oscoda	59
Genesee	1,230	Otsego	358
Gladwin	55	Ottawa	239
Gogebic	93	Presque Isle	41
Grand Traverse	1,114	Roscommon	408
Gratiot	84	Saginaw	719
Hillsdale	68	Sanilac	80
Houghton	134	Schoolcraft	88
Huron	86	Shiawassee	122
Ingham	15,027	St. Clair	304
Ionia	1,216	St. Joseph	127
Iosco	54	Tuscola	986
Iron	114	Van Buren	234
Isabella	987	Washtenaw	2,302
Jackson	1,918	Wayne	13,506
Kalamazoo	1,669	Wexford	219
Kalkaska	44	Statewide,	
Kent	1,549	out-of-state, and	
Keweenaw	20	unallocated	2,592
Lake	41		
Lapeer	1,555	Total	66,546

SOURCE: Michigan Department of Civil Service, special release.

TABLE X-30. PAY INCREASES IN STATE OF MICHIGAN CLASSIFIED SERVICE: FISCAL YEARS: 1944-1980

Fiscal year	Average number employees	Classified payroll	Percentage of general pay increase
1944	14,564	$ 29,472,000	5.6
1945	14,514	31,374,000	2.2
1946	17,148	37,644,000	10.0
1947	19,289	45,879,000	---
1948	20,590	52,840,000	12.2
1949	21,192	58,169,000	2.6
1950	22,560	63,934,000	---
1951	21,485	66,285,000	12.2
1952	22,322	77,740,000	12.4
1953	22,635	85,393,000	---
1954	23,754	93,941,000	4.7
1955	24,839	105,142,000	6.3
1956	26,211	115,207,000	7.5
1957	28,614	134,092,000	---
1958	29,487	152,491,000	8.6
1959	29,948	156,082,000	---
1960	29,875	169,362,000	7.4
1961	31,239	177,578,000	---
1962	31,317	184,575,000	3.0
1963	31,557	187,155,000	---
1964	32,047	200,385,000	4.0
1965	33,274	214,415,000	3.3
1966	36,268	239,568,000	3.6
1967	39,932	285,152,000	6.0
1968	41,822	318,805,000	7.0
1969	43,874	361,939,000	6.3
1970	45,742	407,716,000	6.9
1971	47,227	451,827,000	6.4
1972	48,906	508,710,000	8.1
1973	52,673	530,000,000	5.0
1974	53,502	589,774,457	3.8
1975	55,996	671,432,334	2.1
12-19-74	--	--	5.0[a]
1976	57,856	738,527,879	3.0[b]
1977	60,395	841,403,192	8.3[c]
1978	64,456	957,971,306	6.0
1979	65,000[d]	1,034,000,000[d]	6.0[e]
1980	67,000[d]	1,138,900,000[d]	7.0

SOURCE: Michigan Civil Service Commission, 1977-1978 Annual Report (Lansing: 1979), p. 41.

a. Twenty-seven cents hourly.
b. Cost of living allowance, twenty cents per hour.
c. Includes cost of living allowance.
d. Estimated.
e. Plus seven cents per hour.

TABLE X-32. BONDS AND NOTES ISSUED AND REDEEMED BY LOCAL GOVERNMENTS IN MICHIGAN: 1 JULY 1977 THROUGH 30 JUNE 1978

(In thousands of dollars)

	Gross outstanding 6-30-77	Issued	Redeemed	Gross outstanding 6-30-78
General obligation	3,443,309	225,345	229,499	3,439,155
Act 342 of 1929	365,354	63,740	18,504	410,590
Act 185 of 1957	509,563	98,048	45,523	561,888
M.V.H.F. bonds (Act 175)	69,247	3,959	7,447	65,759
M.V.H.F. bonds (Act 51)	75,858	8,750	5,050	79,558
M.V.H.F. notes (Act 143)	22,129	5,225	3,998	23,356
Notes	205,122	379,977	314,988	270,110
Special assessment bonds	101,019	16,818	17,033	100,803
Drain bonds (Act 40)	325,090	31,425	32,754	323,760
Subtotal	5,116,492	833,287	674,797	5,274,981
Rev. bonds	1,931,697	411,564	45,572	2,297,688
Rev. notes	73,161	29,000	29,395	72,766
Ind. rev. bonds	720,331	160,455	19,624	861,162
TOTAL	7,841,681	1,434,306	769,389	8,506,598

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 13.

TABLE X-27. DEPARTMENT OF DEFENSE MILITARY AND CIVILIAN PERSONNEL WORKING IN MICHIGAN, BY INSTALLATION: 30 SEPTEMBER 1978

Installation	Military personnel				Civilian personnel				
	Army	Navy	Air Force	Total	Army	Navy	Air Force	Civilian personnel activities	Total
Battle Creek	10	15	11	36	41	--	612	1,236	1,889
Detroit	103	475	25	603	483	8	--	303	794
K.I. Sawyer AFB	--	--	3,961	3,961	3	--	423	6	432
Lansing	55	86	2	143	262	--	12	4	278
Sault Ste. Marie	1	--	108	109	257	--	18	--	275
Selfridge AFB	149	217	104	470	424	--	1,343	1	1,768
Sterling Heights	3	--	--	3	1,113	--	--	32	1,145
Warren (including Detroit Arsenal)	290	--	3	293	3,909	--	--	18	3,927
Wurtsmith AFB	--	--	2,908	2,908	1	--	383	5	389
Other	295	100	456	852	688	70	128	277	1,163
Total	906	893	7,578	9,377	7,181	78	2,919	1,882	12,060

SOURCE: U.S. Department of Defense, Distribution of Personnel by State-by Selected Location as of 30 September, 1978 (Washington, D.C.: 1979), p. 39.

TABLE X-28. MICHIGAN CLASSIFIED, UNCLASSIFIED, AND CONTRACTUAL CIVIL SERVICE EMPLOYMENT, BY DEPARTMENT, MARCH 1978 AND 1979

Department	Classified		Unclassified		Contractual		Total filled	
	1978	1979	1978	1979	1978	1979	1978	1979
Executive office	56	55	9	10	1	0	66	65
Legislative	157	156	1,154	1,159	3	1	1,314	1,316
Judiciary	0	0	845	946	0	0	845	946
Management and budget	1,820	1,866	57	61	70	126	1,947	2,053
Attorney general	351	398	3	4	1	5	355	407
Civil rights	285	298	12	12	0	0	297	310
Civil service	468	484	0	0	1	0	469	484
State	2,650	2,733	6	6	7	6	2,663	2,745
Treasury	1,853	1,877	21	21	0	0	1,874	1,898
Education	2,384	2,392	23	22	95	94	2,502	2,508
Public health	1,861	1,837	56	59	7	6	1,924	1,902
Mental health	15,220	16,636	13	12	1,264	1,345	16,497	17,993
Social services	13,812	14,222	146	148	53	50	14,011	14,420
Corrections	4,484	4,853	6	6	9	3	4,499	4,862
Military affairs	338	334	52	55	0	0	390	389
State police	3,112	3,276	14	29	3	1	3,129	3,306
Highway	4,445	4,424	8	7	1	1	4,454	4,432
Commerce	1,786	1,892	28	31	14	54	1,828	1,977
Labor	5,434	5,007	91	101	29	66	5,554	5,174
Licensing and regulation	257	271	116	161	244	233	617	665
Natural resources	3,174	3,182	19	19	57	41	3,250	3,242
Agriculture	745	733	31	24	14	43	790	800
DMB grants program	0	3	21	21	0	0	21	24
Total	64,692	66,929	2,731	2,914	1,873	2,075	69,296	71,918

SOURCE: Michigan Department of Civil Service, special release.

TABLE X-31. TOTAL OUTSTANDING DEBT OF LOCAL GOVERNMENTS IN MICHIGAN: 30 JUNE 1978

(In thousands of dollars)

	Counties	Cities	Villages	Townships	Schools and community colleges	Authorities, districts, and so forth	Total
Gen. obligation bonds	63,045	702,365	11,914	22,804	2,638,677	—	3,439,155
Act 342 of 1939	410,590	--	—	—	—	--	410,590
Act 185 of 1957	561,888	—	--	—	—	--	561,888
M.V.H.F. bonds (Act 175)	—	64,180	1,579	—	--	—	65,759
M.V.H.F. bonds (Act 51)	79,558	--	—	--	—	—	79,558
M.V.H.F. notes (Act 143)	23,365	—	—	--	—	—	23,365
Notes	237,970	3,525	—	2,078	26,534	—	270,110
Special assessment bonds	824	77,928	1,202	20,849	—	--	100,803
Drain bonds (Act 40)	323,760	—	--	—	—	--	323,760
Subtotal	1,701,352	848,000	14,695	45,731	2,665,202	--	5,274,981
Rev. bonds	129,006	464,893	21,294	23,323	928	1,658,243	2,297,688
Rev. notes	—	510	256	—	—	72,000	72,766
Ind. Rev. bonds	287,784	350,426	33,700	189,252	—	—	861,162
TOTAL	2,118,142	1,663,829	69,946	258,306	,666,130	1,730,243	8,506,598

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 14.

TABLE X-33. HISTORY OF OUTSTANDING DEBT OF LOCAL GOVERNMENTS IN MICHIGAN: 30 JUNE 1938 THROUGH 30 JUNE 1978

(In thousands of dollars)

June 30	Approved during year	Gross debt outstanding	Increase (+) or decrease (-) over preceding year
1938	$ —	$ 641,749	$ -18,048
1939	—	632,898	-8,851
1940	—	613,982	-18,915
1941	—	586,640	-27,341
1942	—	575,177	-11,463
1943	—	524,938	-50,238
1944	10,120	487,721	-37,217
1945	11,160	458,492	-29,228
1946	16,151	436,144	-22,348
1947	67,979	440,662	+4,518
1948	36,722	441,897	+1,234
1949	84,573	467,039	+25,142
1950	126,226	542,510	+75,471
1951	125,461	581,894	+39,383
1952	202,511	646,012	+64,117
1953	214,838	702,292	+56,279
1954	184,185	820,966	+118,674
1955	179,566	908,472	+87,506
1956	290,451	1,052,676	+144,203
1957	293,913	1,196,846	+144,170
1958	255,835	1,317,220	+120,373
1959	410,698	1,520,304	+203,084
1960	421,284	1,662,906	+142,602
1961	398,507	1,787,002	+124,096
1962	521,376	1,993,658	+206,656
1963	291,348	2,099,554	+105,896
1964	379,377	2,311,606	+212,051
1965	391,750	2,502,027	+190,421
1966	526,918	2,783,167	+287,140
1967	635,432	3,168,082	+384,914
1968	680,783	3,671,601	+503,519
1969	748,673	3,986,009	+314,408
1970	844,074	4,494,679	+508,669
1971	1,268,020	5,104,755	+610,076
1972	1,207,075	5,541,270	+436,514
1973	993,239	5,842,602	+301,331
1974	1,129,697	6,376,186	+533,584
1975	1,368,630	6,844,035	+467,848
1976	1,679,225	7,467,859	+623,824
1977	1,006,121	7,841,682	+373,823
1978	1,749,929	8,506,598	+664,917

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 15, and earlier years.

TABLE X-34. INVESTMENTS OF THE VARIOUS FUNDS MANAGED BY THE MICHIGAN DEPARTMENT OF TREASURY BY TYPE OF SECURITY: 30 SEPTEMBER 1978

(Thousands of dollars)

	Short-term investments	Government bonds and notes	Mortgages	Corporate bonds and notes	Canadian bonds and notes	Convertible bonds	Mutual bonds	Preferred stock	Common stock	Total
State treasurer's common cash	$1,145,280	—	—	—	—	—	—	—	—	$1,145,280
Deferred lottery prizes account	1,625	55,529	—	—	—	—	—	—	—	57,145
Legislative retirement	—	2,089	42	9,570	—	517	—	—	139	12,358
Michigan state police pension, accident, and disability	—	9,331	1,962	31,630	1,566	1,550	—	—	8,424	54,465
State employees retirement	1,300	92,536	122,398	340,855	5,500	36,859	—	1,183	138,430	739,062
Public school employees chapter I retirement	—	254,854	409,846	1,004,874	22,352	126,461	—	3,000	454,975	2,276,364
Public school employees chapter II retirement	—	33,411	118,397	153,964	9,100	1,700	44,749	2,331	—	363,654
Probate judges retirement	—	887	17	2,557	—	100	—	—	859	4,422
Judges retirement	—	4,057	191	10,260	100	625	—	150	2,838	18,222
Michigan state accident	7,000	101,600	—	—	—	—	—	—	—	108,600
Gifts, bequests, and deposits	485	—	44	2	10	—	2	451	849	1,845
Municipal employees retirement	47,590	66,689	7,950	95,328	11,000	2,925	—	—	40,178	271,662
FHA mortgage escrow-reserve for replacement	3,700	1,297	—	—	—	—	—	—	—	4,997
State employees deferred compensation fund	—	—	—	43,458	—	—	—	—	—	43,458
Michigan malpractice insurance	—	19,805	—	—	—	—	—	—	—	19,805
TOTAL	1,206,980	642,089	660,851	1,692,501	49,628	170,737	44,751	7,116	646,695	5,121,351

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 7.
NOTE: Mutual funds, preferred stock, and common stock are stated at cost; all others at par.

TABLE X-36. COMBINED SCHEDULE OF BONDS AND NOTES PAYMENTS ON OBLIGATIONS OF THE STATE OF MICHIGAN: 1 OCTOBER 1977 - 30 SEPTEMBER 1978

Item	Issue Maturity date	Net interest cost (percent)	New issues	Principal payments ($000)	Interest payments ($000)	Outstanding principal 9-30-78 ($000)
General obligation debt						
School loan notes and bonds,[a] Series I	1971-1985	4.75	—	5,000	1,655	29,500
Series II	1973-1985	4.33	—	4,000	683	14,000
Series III	1975-1985	5.62	—	1,000	—	13,000
Series IV	1978-1989	4.60	20,000	--	462	20,000
Water pollution,[b] Series I	1969-1978	5.49	--	5,000	411	5,000
Series II	1970-1990	5.99	—	—	900	15,000
Series III	1971-1999	4.43	—	--	2,444	50,000
Series IV	1971-1999	4.34	—	6,000	2,548	51,000
Series V	1971-1987	4.07	—	--	280	7,000
Series VI	1972-1998	4.56	—	4,000	2,097	44,000
Series VII	1972-1992	4.43	—	3,000	1,552	34,000
Public recreation,[c] Series I	1970-1980	5.99	—	2,000	360	4,000
Series II	1971-1979	4.43	—	3,000	150	1,000
Series III	1971-1985	4.07	—	2,000	926	23,000
Series IV	1975-1982	5.61	--	2,000	1,450	23,000
Series V	1978-1989	4.60	11,000	—	257	11,000
Vietnam veteran bonus,[d] Series I	1975-1986	4.78	--	3,000	3,426	70,000
Series II	1975-1987	5.62	--	—	4,185	75,000
Series III	1975-1989	5.62	--	1,000	2,174	38,000
General obligation notes	1978-1978	3.61	200,000	200,000	3,206	-0-
TOTAL			231,000	241,000	29,908	527,500
Nongeneral obligation debt						
Highway department tax dedicated bonds						
Highway construction, Series I	1956-1979	3.04	—	1,465	89	1,515
State trunkline hwy., Series I	1958-1982	3.31	--	5,100	818	21,800
Mich. trunkline const., Series II-IX	1959-1987	3.79	—	11,475	4,481	111,350

TABLE X-36. COMBINED SCHEDULE OF BONDS AND NOTES PAYMENTS ON OBLIGATIONS OF THE STATE OF MICHIGAN: 1 OCTOBER 1977 - 30 SEPTEMBER 1978 (cont.)

Item	Issue Maturity date	Net interest cost (percent)	New issues	Principal payments ($000)	Interest payments ($000)	Outstanding principal 9-30-78 ($000)
Nongeneral obligation debt (cont.)						
Joint venture tax dedicated hwy. bonds						
Detroit, Series I-IV	1959-1984	3.60	—	4,960	1,337	34,230
Grand Rapids	1954-1978	2.06	—	595	12	265
Fenton-Clio[e]	1955-1978	2.37	—	225	5	0
Grand Haven-Muskegon	1956-1979	2.69	--	680	33	545
Grand Rapids, 1960 issue	1960-1985	4.12	—	870	319	6,920
Natural resources department						
State park revenue bonds	1961-1996	4.65	—	510	904	14,530
Public building corporation bonds						
State office bldg., corporation (Mason Building)	1951-1993	2.50	—	140	54	2,026
Special authorities revenue bonds and notes[f]						
International Bridge Authority	1960-2000	5.50	—	541	647	10,943
Mackinac Bridge Authority	1953-1994	4.42	—	5,852	2,012	42,807
Mackinac State Park	1966-1986	5.40	--	76	20	335
Michigan state housing authority	1971-2020	6.92	165,000	4,425	40,122	796,345[g]
Mich. state hospital finance authority	1974-2008	7.97	98,200	2,985	20,455	327,565
TOTAL			263,200	39,899	71,313	1,371,176
GRAND TOTAL			494,200	280,899	101,221	1,898,676

TABLE X-37. CASH AND SECURITY HOLDINGS OF EMPLOYEE-RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS: END OF FISCAL YEAR 1977

(In thousands of dollars)

System	Cash and deposits	U.S. government securities		State and local gov't. securities	Non-governmental securities	Total
		U.S. treasury	Federal agency			
State administered						
General, state employees	28,331	38,517	--	--	603,311	38,517
General, municipal employees	3,286	29,675	33	--	167,003	29,708
State police	1,163	--	4,719	--	43,270	4,719
Detroit public school employees	--	--	13,787	--	343,762	13,787
Michigan public school employees	85,789	135,892	--	--	1,885,099	135,892
Michigan state judges	--	--	2,777	--	13,671	2,777
Total[a]	118,662	204,940	23,622	--	3,069,264	228,562
City administered						
Ann Arbor, general	123	800	1,502	--	19,575	2,303
Birmingham, general	9	600	--	--	6,158	600
Dearborn, general	170	300	259	--	11,165	559
Dearborn, policemen and firemen	3	300	79	--	5,701	379
Detroit, general	5,472	3,070	42,478	42	510,416	45,548
Detroit, policemen and firemen	19,817	200	5,868	90	431,133	6,068
East Detroit, general	201	--	298	--	5,775	298
Flint, general	2,593	5,600	2,923	15	73,904	8,523
Grand Rapids, general	39	2,042	1,860	9,876	13,779	3,902
Grand Rapids, policemen and firemen	99	--	5,896	--	16,313	5,896
Highland Park, general	160	991	325	--	7,134	1,316
Jackson, general	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Kalamazoo, general	--	2,382	3,751	--	9,927	6,133
Lansing, general	28	61	10	--	12,391	71
Lansing, policemen and firemen	30	277	--	--	22,512	277
Lansing, water and light	2,352	700	300	--	14,134	1,000
Livonia, general	461	3,706	--	5,271	1,488	3,706

TABLE X-35. INTEREST RECEIVED ON THE VARIOUS FUNDS MANAGED BY THE MICHIGAN DEPARTMENT OF TREASURY: FISCAL YEARS 1970-1978

(In thousands)

	1970	1971	1972	1973	1974	1975	1976[a]	1977	1978[c]
State treasurer's common cash fund	30,546	26,266	23,199	34,327	84,615	80,208[b]	45,306[b]	29,599[b]	68,921[b]
Public school employees retirement fund	38,130	47,569	56,037	68,788	83,208	104,193	147,326	141,611	174,047
State employees retirement fund	12,814	15,449	17,433	20,075	25,325	30,502	46,832	44,148	56,901
Public school employees chapter II retirement fund	—	—	—	—	—	—	29,032	22,253	25,162
State Police pension, accident, and disability fund	547	854	1,217	1,588	1,923	2,619	3,993	3,668	4,894
Judges retirement fund	180	290	403	488	586	795	1,216	1,185	1,637
Retirement legislative fund	172	251	364	434	542	690	1,052	1,031	1,177
Probate judges retirement fund	113	143	189	199	218	250	389	336	431
Other investment funds	8,604	10,602	12,548	13,278	15,277	21,038	28,474	26,894	63,858
TOTAL	91,110	101,427	112,115	139,180	211,696	236,358	291,877	261,382	345,369

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 8.

a. Fiscal year for the 15-month period 1 July 1975 through 30 September 1976.

b. Total state treasurer's common cash fund: 1975 $80,208 1976 $45,306 1977 $29,599 1978 $68,921

Less distribution of earnings to retirement and other funds which are reported in their earnings totals:	30,917	32,249	24,195	51,659
NET	49,291	13,057	5,404	17,262

c. Effective with the fiscal year ended 30 September 1978, earnings are reported on the accrual basis, including realized gains and losses. Prior year data report earnings on a cash basis excluding realized gains and losses. Beginning with this fiscal year, the State Treasurer's Common Cash Fund earnings were accounted for on the accrual basis. This change from the cash basis results in an overstatement of $5.067 million earnings for this year.

TABLE X-36. COMBINED SCHEDULE OF BONDS AND NOTES PAYMENTS ON OBLIGATIONS OF THE STATE OF MICHIGAN: 1 OCTOBER 1977 - 30 SEPTEMBER 1978 (cont.)

Item	Issue Maturity date	Net interest cost (percent)	New issues	Principal payments ($000)	Interest payments ($000)	Outstanding principal 9-30-78 ($000)

SOURCE: Michigan Department of Treasury, Annual Report, 1978 (Lansing: 1979), Table 10A.

a. School loan notes and bonds: Article Nine of the Constitution of the State of Michigan provides that the state may borrow from time to time such amounts that shall be required for the purpose of making loans to school districts. Requirements are established biennially, and general obligation debt is issued as needed.
b. Water pollution bonds: Act 76, Public Acts of 1968, provided for the issuance of $335 million general obligation bonds, of which $33 million remain unissued.
c. Public recreation bonds: Act 257, Public Acts of 1968, provided for the issuance of $100 million general obligation bonds, of which $11 million remain unissued.
d. Vietnam veteran bonus bonds: Act 106, Public Acts of 1974, provided for the issuance of $205 million general obligation bonds, of which $15 million remain unissued.
e. Final payment made on following joint venture tax dedicated highway bonds on date indicated: Fenton-Clio, May 1, 1978.
f. Not administered by Department of Treasury.
g. Includes $736.3 million in bonds, $60,000 million in notes.

TABLE X-37. CASH AND SECURITY HOLDINGS OF EMPLOYEE-RETIRMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEM: END OF FISCAL YEAR 1977 (cont.)

(In thousands of dollars)

System	Cash and deposits	U.S. government securities		State and local gov't. securities	Non-governmental securities	Total
		U.S. treasury	Federal agency			
City administered (cont.)						
Monroe, general	188	912	--	110	4,246	912
Muskegon, general	75	595	163	—	2,904	757
Oak Park, general	108	--	--	—	5,513	—
Pontiac, policemen and firemen	284	1,602	—	--	17,039	1,602
Roseville, general	285	—	--	154	9,843	--
Royal Oak, general	1	959	—	3	14,592	959
Saginaw, policemen and firemen	319	50	--	24	13,337	50
St. Clair Shores, general	—	30	—	50	4,632	30
Southfield, policemen and firemen	72	400	450	—	7,209	850
Sterling Heights, general	118	—	191	—	1,759	191
Sterling Heights, policemen and firemen	5	—	743	—	3,604	743
Sturgis, general	154	29	587	—	3,089	616
Three Rivers, general	354	519	--	—	317	519
Troy, general	230	—	--	—	4,815	—
Warren, general	425	26	—	55	11,440	26
Warren, policemen and firemen	43	—	3,716	—	16,638	3,716
Wyandotte, general	719	—	—	—	14,683	—
Wyoming, general	58	418	50	—	3,508	468
Other locally administered systems						
Bay county, general	11	200	--	—	6,388	200
Berrien county, general	23	3,559	—	—	—	3,559
Genesee county, general	1,909	700	—	—	21,503	700
Gogebic county, general	204	305	465	—	2,312	770
Jackson county, general	59	1,087	453	—	7,141	1,539

TABLE X-38. RECEIPTS AND PAYMENTS OF EMPLOYEE-RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS: FISCAL YEAR 1977 (cont.)

(In thousands of dollars)

System	Receipts					Payments	
	Contributions			Earnings on investments	Total	Benefits	Other
	Employee	State	Local governments				
Other locally administered systems (cont.)							
Kalamazoo county, general	328	—	506	321	1,155	250	45
Kent county, general	685	--	1,800	887	3,372	398	38
Macomb county, general	1,341	—	2,178	1,562	5,081	651	—
Midland county, general	103	—	95	n.a.	198	28	—
Monroe county, general	223	--	255	219	697	51	3
Oakland county, general	288	—	4,483	2,242	7,013	1,135	11
Oakland county, road commission	9	--	1,042	558	1,609	244	17
St. Clair county, general	395	--	1,064	529	1,989	387	3
St. Joseph county, general	53	--	69	60	181	17	—
Sanilac county, general	56	--	77	31	164	7	3
Washtenaw county, general	542	—	748	515	1,804	161	—
Wayne county, general	5,464	—	21,283	12,252	38,999	16,073	287
Total[a]	47,459	678	233,536	114,889	396,561	130,538	1,751
Total, Michigan State and locally administered[a]	123,191	290,470	336,067	375,761	1,125,489	375,185	4,803
United States							
State administered	4,222,512	4,846,715	4,050,972	6,167,061	19,287,260	6,047,683	130,206
ally administered	1,010,961	113,023	3,358,534	1,576,883	6,059,400	2,406,000	78,282
otal	5,233,473	4,959,738	7,409,506	7,743,944	25,346,660	8,454,588	208,488

SOURCE: Bureau of the Census, 1977 Census of Governments, Employee-Retirement Systems of State and Local Governments, vol. 6, Topical Studies, no. 1 (Washington, D.C.: U.S. Government Printing Office, 1978), Tables 7 and 8.

a. Items might not add up to totals because of minor omissions.

n.a.: not available.

TABLE X-39. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977

County	Earnings of state and local government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Luce	68.38	19,172	67.03	20,829
Mecosta	42.56	34,445	41.83	37,346
Isabella	34.56	54,798	33.83	59,478
Lapeer	33.18	55,897	32.06	60,486
Roscommon	32.87	9,823	30.61	10,620
Oscoda	31.44	3,433	29.94	3,705
Keweenaw	30.76	1,328	29.93	1,436
Iron	30.06	11,338	29.65	12,251
Houghton	29.91	29,178	29.42	31,624
Baraga	28.73	6,777	28.42	7,324
Ingham	26.21	516,131	25.12	559,806
Alcona	26.59	3,635	24.67	3,920
Lake	24.31	2,784	23.99	3,005
Gogebic	24.03	11,999	23.94	12,928
Mackinac	24.17	7,926	23.79	8,575
Washtenaw	25.08	442,877	23.40	480,549
Schoolcraft	23.86	6,256	23.36	6,751
Branch	24.60	37,588	22.55	40,708
Montmorency	24.71	3,618	22.52	3,903
Tuscola	22.95	35,102	22.29	37,987
Clinton	23.79	20,963	22.15	22,595
Alger	21.94	5,226	21.76	5,644
Gladwin	22.81	6,539	21.59	7,049
Clare	22.64	9,395	21.43	10,120
Osceola	21.81	10,443	20.57	11,260
Missaukee	21.17	3,503	20.53	3,779
Chippewa	18.13	22,684	20.20	24,472
Ogemaw	20.51	7,832	19.17	7,584
Eaton	20.15	29,030	18.93	31,263
Ionia	20.11	27,519	18.88	29,734
Oceana	19.59	7,031	18.54	8,447
Livingston	19.69	33,551	18.29	36,277
Crawford	18.75	4,809	18.19	5,192
Presque Isle	18.48	6,719	18.19	7,242
Alpena	18.80	24,195	18.05	26,070

TABLE X-39. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Earnings of state and local government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Marquette	17.75	57,503	18.01	62,239
Benzie	19.11	5,178	17.67	5,583
Grand Traverse	18.75	44,260	17.51	47,892
Huron	17.66	21,788	17.29	23,578
Van Buren	17.44	28,184	16.88	30,378
Arenac	18.12	5,801	16.76	6,249
Antrim	17.73	6,596	16.37	7,110
Ontonagon	14.80	7,274	15.92	7,843
Newaygo	15.75	11,938	15.72	12,867
Otsego	16.71	9,241	15.59	9,998
Kalamazoo	15.17	178,294	14.57	192,980
Leelanau	18.03	4,030	14.47	4,345
Delta	13.89	20,350	14.20	21,945
Barry	13.66	14,408	14.13	15,544
Allegan	14.88	27,221	13.90	29,354
Shiawassee	14.10	26,029	13.88	28,032
Kalkaska	15.21	4,588	13.59	4,949
Charlevoix	14.64	9,313	13.56	10,037
St. Clair	14.24	61,682	13.44	66,409
Cass	14.07	17,301	13.41	18,656
Wexford	14.85	12,659	13.39	13,685
Manistee	14.39	10,607	13.38	11,432
Cheboygan	13.58	7,517	13.03	8,103
Menominee	13.25	9,685	12.91	10,440
Monroe	13.95	50,710	12.80	54,594
Montcalm	13.52	20,007	12.74	21,553
Jackson	13.17	93,495	12.70	100,980
Emmet	13.27	11,548	12.63	12,450
Sanilac	13.24	15,315	12.62	16,506
Mason	12.98	10,914	12.53	11,760
Hillsdale	13.10	17,331	12.22	18,675
St. Joseph	11.74	25,412	11.28	27,365
Bay	11.75	55,412	11.09	59,663
Lenawee	11.44	40,916	10.94	44,130
Gratiot	10.73	17,398	10.64	18,743

TABLE X-39. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Earnings of state and local government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Iosco	10.19	10,554	10.60	11,371
Dickinson	10.94	12,499	10.49	13,473
Muskegon	10.42	74,486	10.15	80,195
Berrien	10.04	79,602	9.48	85,757
Ottawa	10.40	57,903	9.44	62,377
Wayne	9.72	1,657,310	9.36	785,311
Macomb	9.47	307,642	8.55	330,972
Calhoun	8.60	69,153	8.46	74,489
Oakland	9.30	507,648	8.35	546,660
Kent	8.30	194,803	7.84	209,932
Genesee	8.25	241,944	7.47	260,420
Saginaw	7.54	100,836	7.09	108,707
Midland	6.79	31,897	6.25	34,323
Michigan	11.98	5,817,726	11.31	6,276,986
United States	11.70	122,661,000	11.35	132,255,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who receive them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Earnings of state and local employees include earnings of military (national guard) and civilian personnel. The latter include faculty and staff of state and local institutions of higher education, public schools, and those who staff police and fire departments (uniformed and otherwise) and other state and local units. Typically, in the records of state and local units themselves, higher education is considered a separate entity, although it receives annual appropriations for operating and capital needs.

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977

County	Earnings of federal government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Iosco	42.61	44,145	42.89	46,019
Chippewa	42.20	52,796	32.80	39,725
Keweenaw	34.26	1,479	32.03	1,537
Marquette	18.62	60,321	18.10	62,511
Crawford	8.23	2,112	7.62	2,176
Calhoun	7.69	61,870	7.24	63,724
Dickinson	7.66	8,752	7.01	9,009
Leelanau	8.20	1,833	6.32	1,899
Alcona	7.05	963	6.26	995
Lake	5.55	636	5.25	658
Gogebic	5.25	2,622	5.01	2,704
Osceola	4.74	518	4.32	535
Presque Isle	4.38	1,592	4.17	1,659
Macomb	4.75	154,376	4.12	159,402
Alger	4.24	1,010	4.02	1,045
Houghton	4.05	3,948	3.80	4,084
Benzie	4.03	1,093	3.58	1,131
Mackinac	3.59	1,178	3.38	1,216
Schoolcraft	3.45	905	3.23	935
Otsego	3.56	1,970	3.17	2,034
Missaukee	3.22	532	2.99	551
Eaton	2.85	4,101	2.58	4,248
Wexford	2.94	2,508	2.54	2,591
Huron	2.63	3,240	2.47	3,364
Cheboygan	2.65	1,468	2.46	1,529
Iron	2.52	949	2.38	983
Arenac	2.66	853	2.36	880
Clinton	2.61	2,303	2.35	2,391
Delta	2.38	3,495	2.34	3,611
Oceana	2.69	1,027	2.34	1,066
Washtenaw	2.61	46,042	2.32	47,484
Alpena	2.49	3,206	2.30	3,326
Charlevoix	2.51	1,595	2.25	1,661
Emmet	2.42	2,103	2.20	2,174
Antrim	2.38	885	2.12	917

TABLE X-37. CASH AND SECURITY HOLDINGS OF EMPLOYEE-RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEM: END OF FISCAL YEAR 1977 (cont.)

(In thousands of dollars)

System	Cash and deposits	U.S. government securities: U.S. treasury	U.S. government securities: Federal agency	State and local gov't. securities	Non-governmental securities	Total
Other locally-administered systems (cont.)						
Kalamazoo county, general	168	1,948	--	—	3,442	1,948
Kent county, general	—	1,574	--	—	12,053	1,574
Macomb county, general	59	4,500	2,106	—	20,995	6,606
Midland county, general	212	—	345	—	874	345
Monroe county, general	83	--	46	—	2,876	46
Oakland county, general	3,879	5,289	—	108	28,682	5,289
Oakland county, road commission	494	—	—	—	14,128	—
St. Clair county, general	1,157	283	212	—	5,826	495
St. Joseph county, general	25	—	—	—	814	—
Sanilac county, general	640	—	—	—	—	—
Washtenaw county, general	665	319	7	—	6,908	326
Wayne county, general	19	348	3,816	—	221,982	4,164
Total[a]	63,110	68,393	80,179	17,028	1,820,882	148,572
Total, Michigan state and locally administered[a]	104,740	273,333	103,801	17,028	4,890,146	377,134
United States						
State administered	818,458	4,729,226	4,770,331	596,096	83,998,414	9,499,557
Locally administered	882,793	1,838,876	849,663	3,031,875	21,965,753	2,688,540
Total	1,701,251	6,568,102	5,619,995	3,627,972	105,964,167	12,188,096

SOURCE: Bureau of the Census, 1977 Census of Governments, Employee-Retirement Systems of State and Local Governments, vol. 6, Topical Studies, no. 1 (Washington, D.C.: U.S. Government Printing Office, 1978), Tables 7 and 8.

a. Items might not add up to totals because of minor omissions.
n.a.: not available.

TABLE X-38. RECEIPTS AND PAYMENTS OF EMPLOYEE-RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS: FISCAL YEAR 1977

(In thousands of dollars)

System	Receipts					Payments	
	Contributions			Earnings on investments	Total	Benefits	Other
	Employee	State	Local governments				
State administered							
General, state employees	837	93,955	—	52,600	147,392	40,342	648
General, municipal employees	11,845	—	21,285	14,547	47,677	9,896	500
State police	—	7,595	—	4,871	12,466	4,816	229
Detroit public school employees	—	16,496	4,683	29,339	50,518	42,198	472
Michigan public school employees	61,980	168,367	76,181	156,689	463,216	145,635	1,617
Michigan state judges	520	1,909	—	1,136	3,565	933	27
Total[a]	75,732	289,792	102,530	260,872	728,928	244,647	3,553
City administered							
Ann Arbor, general	588	—	1,896	1,318	3,802	688	—
Birmingham, general	171	—	475	445	1,091	169	18
Dearborn, general	488	—	1,549	843	2,880	902	—
Dearborn, policemen and firemen	317	—	653	445	1,415	5	—
Detroit, general	10,430	—	53,181	27,884	91,495	32,422	—
Detroit, policemen and firemen	6,989	—	86,192	24,048	117,229	51,141	37
East Detroit, general	203	—	452	391	1,047	155	—
Flint, general	3,038	—	8,318	5,781	17,137	3,845	136
Grand Rapids, general	461	—	1,982	1,156	3,599	870	41
Grand Rapids, policemen and firemen	595	—	2,649	1,432	4,676	895	38
Highland Park, general	256	—	1,120	544	1,919	909	5
Jackson, general	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Kalamazoo, general	699	—	1,389	1,029	3,117	708	—
Lansing, general	376	—	750	757	1,883	469	—
Lansing, policemen and firemen	445	—	1,700	1,421	3,567	910	—
Lansing, water & light	—	—	1,791	1,205	2,997	790	—
Livonia, general	425	—	1,215	838	2,478	198	23

TABLE X-38. RECEIPTS AND PAYMENTS OF EMPLOYEE-RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS: FISCAL YEAR 1977 (cont.)

(In thousands of dollars)

System	Receipts					Payments	
	Contributions			Earnings on investments	Total	Benefits	Other
	Employee	State	Local governments				
City administered (cont.)							
Monroe, general	199	—	400	342	941	179	6
Muskegon, general	111	—	235	216	563	160	8
Oak Park, general	93	—	481	389	964	117	—
Pontiac, policemen and firemen	571	—	1,432	1,248	3,252	690	290
Roseville, general	323	—	907	653	1,883	213	—
Royal Oak, general	311	—	1,449	701	2,461	587	148
Saginaw, policemen and firemen	496	—	1,113	862	2,471	819	15
St. Clair Shores, general	81	—	512	339	931	131	8
Southfield, policemen and firemen	229	—	777	535	1,541	31	12
Sterling Heights, general	123	—	246	159	527	5	—
Sterling Heights, police and firemen	183	—	564	434	1,182	2	—
Sturgis, general	121	—	240	259	620	125	3
Three Rivers, general	62	—	70	63	196	32	—
Troy, general	287	—	479	346	1,112	26	2
Warren, general	444	—	870	747	2,061	210	—
Warren, policemen and firemen	48	—	172	2,243	2,463	217	—
Wyandotte, general	333	—	1,314	902	2,549	543	—
Wyoming, general	231	—	377	314	921	38	7
Other locally administered systems							
Bay county, general	300	—	797	450	1,547	206	5
Berrien county, general	170	—	378	221	769	120	—
Genesee county, general	1,310	—	2,312	1,515	5,136	603	45
Gogebic county, general	121	—	162	180	463	144	10
Jackson county, general	380	—	809	530	1,718	406	7

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Earnings of federal government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Ogemaw	2.25	807	2.11	836
Ontonagon	2.05	1,008	2.11	1,043
Gladwin	2.30	659	2.10	685
Manistee	4.53	1,708	2.06	1,764
Grand Traverse	2.14	5,053	1.91	5,222
Mason	2.01	1,688	1.86	1,747
Mecosta	1.92	1,557	1.81	1,614
Clare	1.97	818	1.80	849
Newaygo	1.87	1,419	1.79	1,470
Osceola	1.98	947	1.79	980
Baraga	1.88	444	1.78	459
Roscommon	1.98	593	1.78	617
Montmorency	2.02	296	1.77	306
Menominee	1.86	1,361	1.74	1,410
Wayne	1.83	312,353	1.69	322,531
St. Clair	1.81	7,848	1.65	8,133
Ingham	1.74	34,248	1.59	35,355
Allegan	1.75	3,209	1.58	3,328
Sanilac	1.70	1,965	1.56	2,034
Van Buren	1.59	2,576	1.49	2,671
Tuscola	1.58	2,422	1.47	2,509
Barry	1.45	1,534	1.45	1,594
Isabella	1.55	2,451	1.44	2,542
Shiawassee	1.49	2,755	1.42	2,859
Ionia	1.56	2,134	1.40	2,211
Hillsdale	1.55	2,047	1.39	2,120
Livingston	1.55	2,636	1.38	2,744
Montcalm	1.52	2,254	1.38	2,336
Saginaw	1.53	20,463	1.38	21,136
Cass	1.47	1,813	1.35	1,883
Kent	1.47	34,507	1.33	35,670
Kalamazoo	1.39	16,381	1.28	16,923
Gratiot	1.30	2,102	1.24	2,177
Lapeer	1.30	2,190	1.21	2,276
Jackson	1.23	8,712	1.13	9,018

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Earnings of federal government employees[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Muskegon	1.15	8,221	1.08	8,519
Monroe	1.17	4,268	1.04	4,459
Bay	1.09	5,154	1.00	5,345
Ottawa	1.11	6,203	.97	6,441
Branch	1.09	1,663	.96	1,726
Lenawee	1.04	3,716	.95	3,854
Berrien	1.04	8,280	.94	8,584
St. Joseph	.98	2,122	.91	2,203
Kalkaska	1.00	301	.86	312
Luce	.89	249	.83	260
Oakland	.93	50,534	.80	52,359
Genesee	.86	25,124	.75	26,022
Midland	.53	2,481	.46	2,576
Michigan	2.23	1,081,700	1.99	1,103,486
United States	6.05	63,431,000	5.77	67,215,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Earnings of federal employees include earnings of military and civilian personnel.

XI. OUTDOOR ENVIRONMENT AND RECREATION

Michigan is comprised of a land area of 56,817 square miles and a water area of 1,399 square miels. At its highest elevation, Mount Curwood, in the Porcupine Mountains, it is 1,980 feet above sea level. Michigan's lowest elevation of 572 feet is on Lake Erie.

The records of the General Services Administration indicate that the federal government owns or leases around 3,400,000 acres of land in the state. The Michigan Department of Natural Resources and the State Military Board own about 4,400,000 acres.

The National Park Service of the United States Department of Interior administers Isle Royale National Park, Pictured Rocks National Lakeshore, and Sleeping Dunes National Lakeshore. There are six wildlife refuges in Michigan managed by the Federal Fish and Wildlife Service, and four national forests managed by the U.S. Forest Service, an agency of the U.S. Department of Agriculture.

The Michigan Department of Natural Resources includes three divisions which operate the state's parks and recreation areas, state forests, and wildlife areas. The Department of Natural Resources also administers the state game and fish laws. The Mackinac Island State Park Commission, which operates Michilimackinac State Park and Mackinac Island State Park, is part of the Department of Natural Resources, the Water Resources Commission, the Michigan State Waterways Commission, and the Great Lakes Fishery Advisory Committee. Private campgrounds open to the public are licensed by the Michigan Department of Public Health.

Land areas of Michigan counties are given in the U.S. Census of Population: 1970. Statistics on gross county areas are available from the Michigan Department of Natural Resources.

Data pertaining to climate at Michigan weather stations are available in Climate of Michigan, by Stations, a publication of the Michigan Weather Service. Separate reports, entitled Local Climatological Data, are available for the stations in Michigan at Alpena, Detroit, Escanaba, Flint, Grand Rapids, Lansing, Marquette, Muskegon, and Sault Ste. Marie. The Michigan Weather Service also publishes specific kinds of reports such as those on temperature extremes and snowfall.

An annual Air Quality Report is published by the Air Pollution Control Division of the Michigan Department of Natural Resources. Other DNR reports include statistics on usage of and facilities at Michigan-owned forests and parks.

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TABLE XI-1. MONTHLY AND ANNUAL NORMALS FOR FIRST ORDER WEATHER STATIONS IN MICHIGAN, PERIOD OF RECORD: 1941 - 1970 (cont.)

Station and item	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Marquette, Post office													
Temperature													
Daily maximum	24.8	26.5	34.3	47.9	58.9	69.6	75.3	73.9	65.3	56.3	39.8	29.0	50.1
Daily minimum	12.0	12.6	20.5	32.4	40.8	50.3	57.3	57.0	49.5	41.0	28.8	17.9	35.0
Monthly	18.4	19.6	27.4	40.2	49.9	60.0	66.3	65.5	57.4	48.7	34.3	23.5	42.6
Precipitation	1.54	1.52	1.88	2.60	2.93	3.44	3.07	3.01	3.45	2.44	2.99	1.97	30.84
Percent of possible sunshine	34.0	42.0	51.0	55.0	57.0	60.0	66.0	61.0	52.0	45.0	26.0	27.0	50.0
Muskegon, Airport													
Temperature													
Daily maximum	30.1	31.5	40.5	54.9	65.9	76.2	80.4	79.2	71.4	60.7	45.7	34.3	55.9
Daily minimum	17.8	17.7	24.8	35.7	44.9	55.0	59.6	58.8	51.6	42.4	32.6	22.6	38.7
Monthly	24.0	24.6	32.7	45.3	55.4	65.6	70.0	69.0	61.5	51.6	39.2	28.5	47.3
Precipitation	2.25	1.76	2.39	3.16	2.71	2.64	2.51	2.57	3.36	2.70	3.04	2.44	31.53
Percent of possible sunshine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sault Ste. Marie, Airport													
Temperature													
Daily maximum	22.0	23.7	32.5	47.2	59.4	70.0	75.1	73.4	64.5	54.8	39.0	26.8	49.0
Daily minimum	6.4	6.7	15.5	29.2	38.5	47.3	52.5	52.9	46.1	37.6	26.5	13.3	31.0
Monthly	14.2	15.2	24.0	38.2	49.0	58.7	63.8	63.2	55.3	46.2	32.8	20.1	40.0
Precipitation	1.92	1.48	1.74	2.22	3.01	3.31	2.60	3.10	3.85	2.85	3.26	2.36	31.70
Percent of possible sunshine	34.0	45.0	54.0	54.0	55.0	57.0	63.0	58.0	46.0	41.0	23.0	27.0	47.0

SOURCE: Michigan Weather Service, Climate of Michigan, by Stations (Lansing: 1974).

NOTE: Temperatures are in degrees farenheit; precipitation is in inches.

n.a.: not available.

TABLE XI-2. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Annual Departure from normal[a]
West Upper Division						
Alberta Ford Forestry Center	11.7		64.7		36.77	
Baraga 5 WNW	13.2M		64.0		E35.23	
Beechwood 7 WNW	10.7		64.1		36.03	
Bergland Dam	8.5		63.0		E32.88	- 5.67
Big Bay 1 S	17.5M		66.3		36.10	
Champion Van Riper Park	10.8		62.9		E34.77	.63
Copper Hrbr	17.0M		--		--	
Crystal Falls 6 NE	9.4M		62.8		29.35	.62
Herman	11.3		62.8		44.21	
Houghton FAA AP	14.1		63.7		39.73	
Iron Mountain Water Works	12.5	- 1.9	65.9	- 1.0	31.63	1.45
Ironwood	7.8	- 4.8	63.6	- 3.9	30.87	- 4.70
Ishpeming	12.6	- 2.1	65.0	- .8	37.09	6.11
Kenton U.S. Forest	M		65.9	.4	30.12	- .74
Marquette WSO CI	17.9	- .5	65.1	- 1.2	31.72	.88
Marquette FAA AP	11.5		63.0		38.07	
Mott Island Isle Royal	--		57.9		--	
Ontonagon 6 SE	13.5		65.0		34.03	
Spalding	--		--		30.87	.92
Stambaugh 1 S	9.2	- 4.2	64.0	- 1.6	31.60	.94
Stephenson 6 W	12.4		65.7		32.14	.05
Watersmeet	13.9	- 1.7	65.6	.5	31.14	- 2.96
Division	12.4	- 2.0	64.1	- 1.2	33.8	1.78
East Upper Division						
Chatham Experimental Farm	14.1	- 2.7	63.7	- 1.4	42.37	8.66
Cornell 4 WSW	14.1		63.8		E39.05	
Detour Village 1N	13.8		64.1		28.55	- .48
Dunbar Forest Experiment Station	10.4		62.8		29.49	
Escanaba	15.3	- 2.1	63.7	- 3.0	24.42	- 3.59
Fayette 3 SW	15.9	- 2.9	64.2	- 1.5	26.38	- 3.66
Grand Marais 1 SSE	16.6	- 1.6	62.3	- .4	33.45	2.04
Manistique	14.7	- 3.5	62.4	- 2.7	31.70	1.46
Munising	10.6M	- 7.6	63.8	- 1.1	41.10	7.33
Newberry State Hosp.	13.8	- 2.5	62.7	- 2.1	38.59	7.05
Port Inland					35.00	
Rock					--	
Rudyard 4N	--		--		--	
St. Ignace-Mackinac BR	13.8		65.4		24.05	

TABLE XI-2. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual Total	Precipitation (inches) Departure from normal[a]
East Upper Division (cont.)						
Sault Ste. Marie WSO	10.8	- 3.4	62.4	- 1.4	38.21	6.51
Seney National WLR	13.3	- 3.4	64.8	- 1.2	36.94	4.61
Steuben					—	
Tahquamenon Falls Park	13.6		63.3		E39.04	
Trout Lake	--		62.2M		--	
Whitefish Point	15.5		58.9		E38.07	
Division	13.8	- 3.1	63.2	- 1.5	33.88	1.93
Northwest Lower Division						
Boyne Falls	15.6		68.4		E30.92	
Cadillac	14.7M	- 3.2	63.9	- 2.2	27.91	- 4.48
Charlevoix					27.79	- 3.00
Cross Village	17.5		66.2		27.06	
East Jordon	16.1	- 4.8	67.2	- .6	30.39	- .98
Fife Lake 4 S	16.1		--		--	
Fife Lake 4 SW			M			
Frankfort 2NE	20.3		65.1		33.70	
Houghton Lake 6 WSW	14.4M	- 4.9	64.1	- 3.6	25.27	- 3.35
Kalkaska					26.27	- 5.92
Lake City Experimental Farm	13.7	- 4.6	65.0	- 2.2	26.82	- 2.05
Manistee	20.8	- 2.6	66.8M	- 2.3	34.01	3.09
Maple City	19.0		68.4		33.54	
Northport 2					28.90	
Pellston FAA AP	14.5	- 2.0	64.7	- .8	35.32	4.11
Petoskey	18.7		67.2		E27.77	
St. James Beaver Island	17.8		65.2		30.50	
Thompsonville					34.72	2.15
Traverse City FAA AP	16.8	- 4.0	67.1	- 1.6	29.12	.77
Wellston Tippy Dam					37.58	5.63
Division	16.9	- 3.3	66.1	- 1.2	30.22	.78
Northeast Lower Division						
Alpena WSO AP	16.2	- 1.6	65.9	.4	26.75	- .84
Alpena WW Trtmt Plant	18.3M	- 2.2	66.9M	- .1	28.32	1.14
Atlanta	14.1	- 4.5	—		--	
Cheboygan	15.6	- 4.0	64.2M	- 3.8	26.91	- .32
East Tawas	17.0	- 4.2	M		30.31	1.00
Gaylord 2W	15.0		66.6M		35.14	2.45

TABLE XI-1. MONTHLY AND ANNUAL NORMALS FOR FIRST ORDER WEATHER STATIONS IN MICHIGAN, PERIOD OF RECORD: 1941-1970

Station and item	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Alpena, Airport													
Temperature													
Daily maximum	29.6	28.7	36.8	51.6	63.6	74.3	79.0	77.3	68.4	58.9	42.9	31.0	53.3
Daily minimum	8.7	7.9	15.6	28.5	37.4	47.4	51.9	51.1	44.1	35.7	26.9	15.7	30.9
Monthly	17.8	18.3	26.2	40.1	50.5	60.9	65.5	64.2	56.3	47.3	34.9	23.4	42.1
Precipitation	1.66	1.35	1.87	2.43	2.70	2.87	2.50	2.69	3.25	1.97	2.45	1.85	27.59
Percent of possible sunshine	40.0	47.0	54.0	54.0	61.0	64.0	68.0	63.0	56.0	47.0	28.0	30.0	53.0
Detroit City, Airport													
Temperature													
Daily maximum	31.7	33.7	43.1	57.6	68.5	79.1	83.1	81.6	74.2	63.4	47.7	35.4	58.3
Daily minimum	19.2	20.1	27.6	38.6	48.3	59.1	63.4	62.1	54.8	45.2	34.4	23.8	41.4
Monthly	25.5	26.9	35.4	48.1	58.4	69.1	73.3	71.9	64.5	54.3	41.1	29.6	49.9
Precipitation	1.93	1.80	2.33	3.08	3.43	3.04	2.99	3.04	2.30	2.52	2.31	2.19	30.96
Percent of possible sunshine	32.0	43.0	49.0	52.0	59.0	65.0	70.0	65.0	61.0	56.0	35.0	32.0	54.0
Detroit, Metro airport													
Temperature													
Daily maximum	31.9	34.3	43.8	58.1	69.1	79.4	83.4	82.0	74.8	64.1	47.8	35.4	58.7
Daily minimum	17.3	18.8	26.7	37.3	47.0	57.2	61.1	59.5	52.3	42.1	32.3	21.5	39.4
Monthly	24.6	26.6	35.3	47.7	58.1	68.3	72.3	70.8	63.6	53.1	40.1	28.5	49.1
Precipitation	1.91	1.75	2.47	3.22	3.31	3.42	3.10	3.28	2.16	2.48	2.32	2.27	31.69
Percent of possible sunshine	40.0	45.0	51.0	54.0	58.0	62.0	66.0	71.0	59.0	52.0	29.0	26.0	53.0
Flint, Airport													
Temperature													
Daily maximum	29.9	32.0	41.4	56.5	67.0	77.0	81.2	79.7	72.2	61.9	45.9	33.8	56.5
Daily minimum	14.6	15.5	23.7	35.3	44.5	54.6	58.2	56.6	49.7	40.5	30.6	19.7	37.0
Monthly	22.3	23.8	32.6	45.9	55.8	65.8	69.7	68.2	61.0	51.2	38.3	26.8	46.8

TABLE XI-1. MONTHLY AND ANNUAL NORMALS FOR FIRST ORDER WEATHER STATIONS IN MICHIGAN, PERIOD OF RECORD: 1941 - 1970 (cont.)

Station and item	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Flint, Airport (cont.)													
Precipitation	1.70	1.58	2.11	2.86	3.12	3.43	2.99	3.25	2.52	2.24	2.29	1.68	29.77
Percent of possible sunshine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Grand Rapids, Airport													
Temperature													
Daily maximum	30.3	32.6	42.0	57.3	68.8	79.1	83.3	81.9	73.9	63.1	46.2	33.9	57.7
Daily minimum	16.0	16.4	24.2	35.6	45.4	55.6	59.6	58.1	50.8	40.8	31.1	20.8	37.9
Monthly	23.2	24.2	33.1	46.5	57.1	67.4	71.5	70.0	62.4	52.0	38.7	27.4	47.8
Precipitation	1.94	1.50	2.50	3.39	3.19	3.42	3.09	2.54	3.30	2.56	2.80	2.16	32.39
Percent of possible sunshine	36.0	41.0	47.0	53.0	58.0	62.0	64.0	65.0	54.0	46.0	26.0	25.0	50.0
Houghton Lake, Airport													
Temperature													
Daily maximum	25.8	28.0	36.9	53.2	65.2	75.2	78.8	77.0	68.2	58.0	41.7	29.6	53.1
Daily minimum	9.0	8.3	16.4	30.5	40.3	50.0	53.6	52.6	45.2	37.2	27.1	15.5	32.2
Monthly	17.4	18.2	26.7	41.9	52.8	62.6	66.2	64.8	57.0	47.6	34.4	22.6	42.7
Precipitation	1.46	1.20	1.72	2.37	2.78	3.34	3.07	2.35	3.17	2.58	2.53	1.82	28.39
Percent of possible sunshine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Lansing, Airport													
Temperature													
Daily Maximum	29.9	32.0	41.7	57.0	68.1	78.4	82.6	81.1	73.0	62.1	46.0	33.9	57.2
Daily minimum	15.3	16.0	24.1	35.9	45.1	55.8	59.2	57.8	50.4	41.0	30.8	20.2	37.7
Monthly	22.6	24.0	32.9	46.5	56.8	67.1	70.9	69.5	61.7	51.6	38.4	27.1	47.5
Precipitation	1.91	1.62	2.36	2.90	3.32	3.47	2.82	2.79	2.63	2.31	2.26	2.00	30.39
Percent of possible sunshine	36.0	43.0	48.0	52.0	63.0	66.0	70.0	68.0	59.0	53.0	30.0	29.0	53.0

TABLE XI-2. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
Northeast Lower Division (cont.)						
Grayling	13.6	- 4.5	65.1	- 2.3	29.79	- 3.26
Hale Loud Dam	15.3	- 3.2	66.4	- .7	27.03	- 1.38
Harrisville 6 N	18.2		64.8M		26.24	
Higgins Lake	-		-		--	
Houghton Lake WSO AP	14.5	- 2.9	65.1	- 1.1	26.33	- 2.06
Lupton 1S	14.5		65.7		28.47	
Mio Hydro Plant	16.1	- 1.8	67.0	.2	E26.40	.03
Onaway State Park	15.9	- 2.9	68.3	.3	E29.58	- .03
Rogers City 3S	M		-		--	
Vanderbilt 11 ENE	12.6	- 4.7	64.6	- 1.3	29.29	- .31
West Branch	-		65.8M	- 1.3	25.42	- 3.55
Division	15.5	- 3.4	65.9	- 1.2	28.25	- .95
West Central Lower Division						
Baldwin	16.5	- 4.3	65.7M	- 3.3	33.15	.20
Hart	18.7	- 4.6	66.8	- 3.0	37.11	4.37
Hesperia 4 WNW	17.0		66.5		39.64	6.60
Ludington 4SE	17.8	- 5.5	66.1	- 2.6	31.14	- .22
Montague 4 N	M		65.3		36.08	
Muskegon WSO AP	19.5	- 4.5	67.3	- 2.7	33.90	2.37
Newaygo 2					33.42	
Scotville 1 NE					--	
Division	17.9	- 4.6	66.3	- 2.9	35.18	2.84
Central Lower Division						
Alma	18.8	- 3.5	68.5	- 3.1	23.63	- 5.58
Big Rapids Waterworks	17.3	- 3.6	67.3	- 1.8	30.19	- 2.40
Evart	15.3		66.1		30.73	
Gladwin	16.2	- 3.5	66.9	- 1.8	25.46	- 6.36
Greenville 2 NNE	18.3	- 4.2	68.7	- 2.6	30.91	- .81
Harrison 1 NNW					27.67	- 3.02
Midland	20.0M	- 3.1	70.6	- 1.0	23.31	- 6.20
Mt. Pleasant Univ.	18.1	- 3.5	68.9	- 2.0	22.77	- 7.07
Division	17.7	- 3.8	68.1	- 2.1	26.71	- 4.07
East Central Lower Division						
Bad Axe	18.3	- 3.2	67.7	- 1.7	24.48	- 4.34
Bay City	18.8	- 4.3	71.0M	- 1.0	--	
Caro State Hospital	18.8	- 3.2	69.8	- .5	25.98	- 2.22
Essexville	-		-		--	
Harbor Beach 3 NW	19.4	- 2.5	67.6	- .8	28.32	- 5.03

TABLE XI-2. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
East Central Lower Division (cont.)						
Millington 3 SW					23.23	- 5.22
Saginaw Consumers Power Co.	20.4		71.0M		25.00	
Saginaw FAA AP	16.6	- 4.8	69.2	- 1.4	24.05	- 6.02
Saint Charles	20.5		71.3		24.27	- 4.63
Sandusky	18.0	- 4.4	67.6	- 2.7	22.83	- 6.10
Sebewaing Michigan Sugar Co.					26.52	- .37
Standish 2 SSW	16.4	- 4.0	66.7	- 2.4	26.41	- 1.36
Division	18.6	- 3.3	69.1	- 1.2	25.03	- 4.09
Southwest Lower Division						
Allegan	17.6	- 7.2	68.6	- 3.4	45.97	12.97
Benton Harbor AP	20.0M	- 5.9	70.3	- 1.1	37.25	1.21
Bloomingdale	18.1	- 6.7	68.1	- 3.7	51.35	14.61
Dowagiac 1 W	19.1		69.9		44.92	
Eau Claire 4 NE	18.4	- 6.3	70.7	- 2.3	40.20	4.60
Grand Haven Fire Department	22.2	- 3.3	69.4	- .8	30.73	.55
Grand Rapids WSO AP	19.3	- 3.9	70.4	- 1.1	36.53	4.14
Gull Lake Biological Station	18.8M	- 4.7	70.7	- 1.3	39.21	5.56
Niles					44.89	
Holland	19.3	- 6.1	68.6	- 2.8	39.54	4.53
Kalamazoo State Hospital	19.3	- 5.5	71.9	- 1.0	41.63	7.64
Kent City 2 SW					33.73	1.71
Lowell					34.27	1.63
South Haven Experimental Farm	20.6	- 5.8	68.9	- 1.8	42.30	8.89
Division	19.3	- 5.6	69.8	- 2.0	40.98	6.35
South Central Lower Division						
Albion					28.62	- 5.17
Battle Creek	19.1	- 4.2	70.7	- 1.1	35.99	1.85
Charlotte	17.7	- 5.4	67.5	- 3.5	33.71	1.26
Coldwater State Sch	17.7	- 6.2	69.6	- 1.5	31.56	- 2.23
East Lansing 3 SE	17.6		68.8		25.37	
Eaton Rapids					29.50	- .73
Grand Ledge 1 NW					29.00	- 1.41
Hastings	17.5	- 6.1	68.5	- 3.3	36.66	5.73
Hillsdale	18.3	- 5.3	68.7	- 2.1	33.78	- 2.95
Ionia	20.0		70.4M		30.29	- .55

TABLE XI-2. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
South Central Lower Division (cont.)						
Jackson FAA AP	17.3	- 5.7	72.0	.3	27.20	- 3.15
Lansing WSO AP	17.6	- 5.0	69.5	- 1.4	27.44	- 2.95
Owosso Wastew. Plt	18.2	- 4.8	70.3	- .4	26.68	- 6.89
St. Johns	19.1	- 3.5	70.8	- .5	25.28	- 5.17
Three Rivers	18.8	- 5.7	71.0	- 1.0	33.77	- .38
Williamston					E28.88	
Division	18.2	- 5.1	69.8	- 1.5	30.33	- 1.69
Southeast Lower Division						
Adrian 2 NNE	17.9	- 6.4	70.1	- 2.3	32.62	- .28
Ann Arbor, University of Michigan	18.8	- 6.1	70.6	- 2.1	30.03	- .51
Dearborn	19.3		70.8		27.42	
Detroit City AP	21.3	- 4.2	71.5	- 1.8		
Detroit Metro WSO AP	19.6	- 5.0	70.6	- 1.7	27.65	- 4.04
Flint WSO AP	18.2	- 4.1	69.6	- .1	23.69	- 6.08
Grosse Pointe Farms	20.7		71.6		23.45	
Howell WW Plt					25.27	- 4.71
Lapeer	16.0	- 6.6	69.7	- .8	24.44	- 4.10
Milford GM Proving Grounds	16.4	- 5.7	70.5	- .1	26.15	- 7.00
Monroe	19.0M	- 6.7	73.1	- .3	27.15	- 4.14
Mount Clemens AF Base	19.5	- 4.6	6.84	- 3.5	28.47	.78
Pontiac State Hospital	18.9	- 4.6	71.9	.0	24.81	- 5.25
Port Huron	19.1	- 5.4	70.7M	- 1.1	25.40	- 7.93
Washington 2 NNW	17.3		67.3		30.58	
Willis 5 SSW	17.3	- 6.1	68.8	- 2.1	27.24	- 4.89
Yale 1 NNE					24.32	- 5.12
Ypsilanti, Eastern Michigan Univ	19.5	- 5.2	71.8	- 1.0	27.68	- 3.00
Division	18.7	- 5.4	70.4	- 1.6	27.11	- 4.02

SOURCE: National Oceanic and Atmospheric Administration, Climatological Data - Michigan Annual Summary 1978, vol. 93, no. 13 (Asheville, N.C.: 1978), Tables 1 and 2.

a. Normals for all stations are climatological normals based on the period 1941-1970.
M: One or more days record missing; if average value is entered, less than 10 days record is missing.
E: Amount is wholly or partially estimated.
AP: Airport
WSO: Weather station office.
Station names: Figures and letters following the station name, such as 12 SW, indicate distance in miles and direction from post office.

TABLE XI-3. LOCATION AND GROUND LEVEL ELEVATION OF MICHIGAN WEATHER STATIONS

Station	County	Location		Elevation in feet
		Latitude N	Longitude W	
Adrian 2 NNE	Lenawee	41°55'	84°10'	754
Alberta Ford For Cntr	Baraga	46°39'	88°29'	1,313
Albion	Calhoun	42°15'	84°46'	940
Allegan	Allegan	42°31'	85°50'	670
Alma	Gratiot	43°23'	84°40'	760
Almont	Lapeer	42°55'	83°02'	824
Alpena WSO AP	Alpena	45°04'	83°34'	689
Alpena WW Treatment Plt	Alpena	45°04'	83°26'	586
Ann Arbor Univ of Michigan	Washtenaw	42°18'	83°43'	900
Atlanta	Montmorency	45°01'	84°09'	890
Bad Axe	Huron	43°49'	83°00'	715
Baldwin	Lake	43°54'	85°51'	835
Baraga 5 WNW	Baraga	46°53'	88°36'	765
Baraga 1 N	Baraga	46°47'	88°29'	800
Battle Creek	Calhoun	42°20'	85°11'	870
Bay City	Bay	43°37'	83°52'	590
Beaverton 1 ESE	Gladwin	43°53'	84°28'	720
Beechwood 7 WNW	Iron	46°11'	88°53'	1,660
Bellaire	Antrim	44°59'	85°12'	625
Benton Hrbr AP	Berrien	42°08'	86°26'	649
Bergland Dam	Ontonagon	46°35'	89°33'	1,300
Berrien Springs 5 W	Berrien	41°57'	86°25'	752
Big Bay 8 NW	Marquette	46°53'	87°52'	612
Big Bay 1 S	Marquette	46°48'	87°44'	660
Big Rapids Waterworks	Mecosta	43°42'	85°29'	930
Bloomingdale	Van Buren	42°23'	85°58'	725
Boyne Falls	Charlevoix	45°10'	84°55'	735
Brown City 5 SSW	St. Clair	43°08'	83°00'	820
Bruce Crossing	Ontonagon	46°32'	89°11'	1,135
Burlington 3 E	Calhoun	42°06'	85°02'	960
Cadillac	Wexford	44°16'	85°24'	1,295
Caro	Tuscola	43°27'	83°24'	670
Casnovia 2 NW	Muskegon	43°15'	85°49'	850
Cass City 1 SSW	Tuscola	43°35'	83°11'	710
Champion Van Riper PK	Marquette	46°31'	87°59'	1,565
Charlevoix	Charlevoix	45°19'	85°17'	602
Charlotte	Eaton	42°33'	84°50'	897
Chatham Exp Farm	Alger	46°21'	86°56'	875
Cheboygan	Cheboygan	45°39'	84°28'	590
Chelsea 1 NE	Washtenaw	42°19'	84°01'	900

TABLE XI-3. LOCATION AND GROUND LEVEL ELEVATION OF MICHIGAN WEATHER STATIONS (cont.)

Station	County	Location		Elevation in feet
		Latitude N	Longitude W	
Coldwater State Sch	Branch	41°57'	85°00'	984
Coldwater W-Water Plt	Branch	41°56'	85°01'	950
Coloma 3 NNW	Berrien	42°14'	86°19'	700
Copper Harbor	Keweenaw	47°28'	87°53'	620
Copper Hrbr Ft Wilkns	Keweenaw	47°28'	87°52'	625
Cornell 4 WSW	Delta	45°53'	87°18'	880
Cross Village	Emmet	45°38'	85°02'	710
Crystal Falls 6 NE	Iron	46°10'	88°14'	1,360
Dansville 1 W	Ingham	42°33'	84°19'	960
Dearborn	Wayne	42°19'	83°14'	605
De Tour 1 N	Chippewa	46°01'	83°55'	598
Detroit City AP	Wayne	42°25'	83°01'	625
Detroit Metro WSO AP	Wayne	42°14'	83°20'	633
Dimondale 1 WSW	Eaton	42°39'	84°39'	875
Dowagiac 1 W	Cass	41°59'	86°08'	735
Dunbar Forest Sta	Chippewa	46°19'	84°14'	600
East Jordan	Charlevoix	45°09'	85°08'	590
East Lansing 3 SE	Ingham	42°42'	84°28'	888
East Tawas	Iosco	44°17'	83°30'	590
Eaton Rapids	Eaton	42°31'	84°39'	870
Eau Claire 4 NE	Berrien	42°01'	86°15'	870
Edmore 3 SSW	Montcalm	43°22'	85°04'	970
Escanaba	Delta	45°45'	87°02'	600
Essexville	Bay	43°37'	83°52'	588
Evart	Osceola	43°54'	85°16'	997
Ewen 5 E	Ontonagon	46°32'	89°11'	1,135
Fayette 3 SW	Delta	45°41'	86°42'	788
Fife Lake 4 S	Grand Traverse	44°31'	85°21'	990
Fife Lake 4 SW	Grand Traverse	44°33'	85°25'	1,080
Flint WSO AP	Genesee	42°58'	83°45'	766
Flint 7 W	Genesee	43°01'	83°42'	679
Frankfort 2 NE	Benzie	44°39'	86°12'	865
Gaylord 2W	Otsego	45°02'	84°43'	1,320
Gladwin	Gladwin	43°58'	84°28'	780
Glennie Alcona Dam	Alcona	44°34'	83°48'	895
Grand Haven Fire DP	Ottawa	43°04'	86°13'	620
Grand Haven W-water Plt	Ottawa	43°04'	86°12'	602
Grand Ledge 1 NW	Eaton	42°46'	84°46'	790
Grand Marais 1 SSE	Alger	46°40'	85°59'	755
Grand Rapids WSO AP	Kent	42°53'	85°31'	784

TABLE XI-3. LOCATION AND GROUND LEVEL ELEVATION OF MICHIGAN WEATHER STATIONS (cont.)

Station	County	Location		Elevation in feet
		Latitude N	Longitude W	
Grayling	Crawford	44°40'	84°42'	1,140
Greenville 2 NNE	Montcalm	43°12'	85°15'	882
Grosse Pointe Farms	Wayne	42°23'	82°54'	613
Gull Lake Biol Sta	Kalamazoo	42°24'	85°24'	890
Gwinn 1 W	Marquette	46°17'	87°27'	1,108
Hale Loud Dam	Iosco	44°28'	83°43'	815
Hancock McLain St Pk	Houghton	47°14'	88°37'	620
Harbor Beach	Huron	43°50'	82°39'	600
Harbor Beach 3 NW	Huron	43°52'	82°41'	620
Harrison 1 NNW	Clare	44°02'	84°48'	1,156
Harrisville 6 N	Alcona	44°45'	83°18'	605
Hart	Oceana	43°42'	86°22'	675
Hastings	Barry	42°39'	85°18'	780
Hastings 3 SE	Barry	42°37'	85°15'	800
Herman	Baraga	46°40'	88°20'	1,740
Hesperia 4 WNW	Oceana	43°35'	86°06'	780
Higgins Lake	Crawford	44°31'	84°45'	1,190
Hillsdale	Hillsdale	41°56'	84°38'	1,080
Holland	Ottawa	42°48'	86°07'	610
Houghton FAA AP	Houghton	47°10'	88°30'	1,081
Houghton Lake 6 WSW	Missaukee	44°19'	84°53'	1,135
Houghton Lake WSO AP	Roscommon	44°22'	84°41'	1,150
Howell Wastewater Plt	Livingston	42°36'	83°56'	915
Hudson	Lenawee	41°52'	84°21'	913
Ionia	Ionia	42°59'	85°03'	740
Iron Mountain Wtr Wks	Dickinson	45°50'	88°04'	1,155
Ironwood	Gogebic	46°28'	90°11'	1,430
Ishpeming	Marquette	46°29'	87°39'	1,436
Jackson FAA AP	Jackson	42°16'	84°28'	998
Jackson 3 N	Jackson	42°17'	84°24'	980
Kalamazoo	Kalamazoo	42°18'	85°37'	900
Kalamazoo State Hosp	Kalamazoo	42°17'	85°36'	945
Kalkaska	Kalkaska	44°44'	85°10'	1,040
Kent City 2 SW	Kent	43°12'	85°46'	840
Kenton U S Forest	Houghton	46°29'	88°53'	1,167
Kincheloe A F Base	Chippewa	46°15'	84°28'	780
Lake City Exp Farm	Missaukee	44°19'	85°12'	1,240
Lansing WSO AP	Ingham	42°47'	84°36'	841
Lapeer	Lapeer	43°03'	83°20'	828
Lowell 2 SE	Kent	42°56'	85°21'	612
Lowell	Kent	42°56'	85°20'	640

TABLE XI-3. LOCATION AND GROUND LEVEL ELEVATION OF MICHIGAN WEATHER STATIONS (cont.)

Station	County	Location		Elevation in feet
		Latitude N	Longitude W	
Ludington 4 SE	Mason	43°54'	86°24'	690
Ludington State Pk	Mason	44°02'	86°31'	595
Lupton 1 S	Ogemaw	44°25'	84°01'	900
Manistee	Manistee	44°14'	86°18'	585
Manistique	Schoolcraft	45°57'	86°15'	620
Maple City	Leelanau	44°51'	85°51'	730
Marquette WSO Cl	Marquette	46°34'	87°24'	677
Marquette FAA AP	Marquette	46°32'	87°34'	1,415
Midland	Midland	43°37'	84°13'	642
Milford GM Prov Grn	Livingston	42°35'	83°42'	990
Millington 3 SW	Tuscola	43°14'	83°34'	760
Mio Hydro Plant	Oscoda	44°40'	84°08'	963
Monroe	Monroe	41°55'	83°24'	592
Montague 4 NW	Muskegon	43°28'	86°25'	650
Montague 2 N	Muskegon	43°27'	86°21'	665
Morenci	Lenawee	41°43'	84°12'	955
Mott Island Isle Royal	Keweenaw	48°06'	88°33'	609
Mount Clemens AF Base	Macomb	42°36'	82°49'	577
Mt Pleasant Univ	Isabella	43°35'	84°46'	796
Munising	Alger	46°25'	86°39'	620
Munith 5 SW	Jackson	42°20'	84°19'	953
Muskegon WSO AP	Muskegon	43°10'	86°14'	627
Newaygo 2	Newaygo	43°25'	85°47'	750
Newberry State Hosp	Luce	46°20'	85°30'	886
Niles 1 NW	Berrien	41°51'	86°16'	650
Northport 2	Leelanau	45°08'	85°37'	597
Nottawa 3 SE	St. Joseph	41°53'	85°25'	860
Onaway State Pk	Presque Isle	45°26'	84°14'	690
Ontonagon 2 SSE	Ontonagon	46°51'	89°18'	673
Ontonagon 6 SE	Ontonagon	46°50'	89°12'	790
Owosso Wastewater Plt	Shiawassee	43°01'	84°11'	738
Oxford	Oakland	42°50'	83°16'	1,040
Pellston FAA AP	Emmet	45°34'	84°48'	710
Petoskey	Emmet	45°22'	84°59'	610
Pontiac State Hosp	Oakland	42°39'	83°18'	974
Port Huron	St Clair	42°59'	82°25'	590
Port Inland	Schoolcraft	45°58'	85°52'	608
Rock	Delta	46°04'	87°10'	950
Rogers City 3 S	Presque Isle	45°23'	83°50'	738
Roscommon	Roscommon	44°30'	84°36'	1,130

TABLE XI-3. LOCATION AND GROUND LEVEL ELEVATION OF MICHIGAN WEATHER STATIONS (cont.)

Station	County	Location		Elevation in feet
		Latitude N	Longitude W	
Rudyard 4 N	Chippewa	46°17'	84°37'	750
Saginaw Consum Pwr Co	Saginaw	43°27'	83°58'	602
Saginaw 3	Saginaw	43°25'	83°58'	600
Saginaw FAA AP	Saginaw	43°32'	84°05'	660
Saint Charles	Saginaw	43°18'	84°08'	596
St Ignace-Mackinac BR	Mackinac	45°51'	84°43'	600
St. James Beaver Island	Charlevoix	45°45'	85°30'	598
Saint Johns	Clinton	43°01'	84°33'	755
Sandusky	Sanilac	43°25'	82°50'	774
Sault S. Marie WSO AP	Chippewa	46°28'	84°22'	721
Scottville 1 NE	Mason	43°58'	86°16'	678
Sebewaing Mich SGR Co	Huron	43°44'	83°27'	600
Seney Natl WLR	Schoolcraft	46°17'	85°57'	710
South Haven Exp Farm	Van Buren	42°24'	86°17'	626
Spalding	Menominee	45°41'	87°30'	860
Stambaugh 1 S	Iron	46°04'	88°38'	1,485
Standish 2 SSW	Arenac	43°57'	83°58'	620
Stanton	Montcalm	43°17'	85°06'	930
Stephenson 6W	Menominee	45°25'	87°43'	760
Steuben	Schoolcraft	46°11'	86°28'	740
Tahquamenon Falls Pk	Chippewa	46°36'	85°14'	745
Thompsonville	Benzie	44°31'	85°56'	795
Three Rivers	St Joseph	41°56'	85°38'	810
Traverse City	Grand Traverse	44°46'	85°34'	605
Traverse City FAA AP	Grand Traverse	44°44'	85°35'	618
Trout Lake	Chippewa	46°12'	85°01'	840
Vanderbilt 11 ENE	Otsego	45°10'	84°27'	925
Vassar	Tuscola	43°22'	83°35'	634
Vestaburg	Montcalm	43°24'	84°55'	915
Wakefield	Gogebic	46°29'	89°55'	1,538
Washington 2 NNW	Macomb	42°45'	83°03'	840
Watersmeet	Gogebic	46°16'	89°11'	1,630
Wellston Tippy Dam	Manistee	44°15'	85°57'	650
West Branch	Ogemaw	44°16'	84°14'	910
Whitefish Point	Chippewa	46°46'	84°58'	610
White pigeon 3 ENE	St. Joseph	41°47'	85°35'	805
Williamston	Ingham	42°41'	84°18'	860
Willis 5 SSW	Washtenaw	42°05'	83°35'	660
Yale 1 NNE	St. Clair	43°09'	82°48'	819
Ypsilanti East Mich Univ	Washtenaw	42°15'	83°37'	779

SOURCE: National Oceanic and Atmospheric Administration, Climatological Data, Annual Summary, Michigan, 1978, vol. 93, no. 13 (Asheville, N.C.: 1979), pp. 12-14.

TABLE XI-4. MONTHLY FAHRENHEIT TEMPERATURE EXTREMES FOR THE STATE OF MICHIGAN: PERIOD OF RECORD THROUGH JUNE 1976

Month	Highest	Station	Date	Lowest	Station	Date
January	72°	Ann Arbor	1/25/50	-48°	Humboldt	1/28/15
February	70°	Wayne Monroe	2/26/44 2/26/44	-51°	Vanderbilt	2/09/34
March	89°	Lapeer	3/27/10	-45°	Fife Lake	3/09/43
April	98°	Seney	4/26/15	-34°	Bergland	4/01/23
May	105°	Cassopolis	5/23/25	8°	Fife Lake	5/01/66
June	107°	Houghton Lake	6/01/34	12°	Humboldt	6/18/97
July	112°	Mio	7/13/36	20°	Baraga Wetmore	7/01/03 7/01/03
August	108°	Morenci Plymouth	8/05/18 8/06/18	21°	Baraga	8/18/15 8/25/15
September	104°	Adrian Wayne	9/02/13 9/05/54	9°	Watersmeet	9/28/42
October	94°	Mottville St. Joseph	10/01/97 10/04/22 10/05/22	-3°	Humboldt	10/29/05
November	84°	Wayne	11/01/50	-23°	Pellston	11/24/50 11/25/50
December	69°	Kalamazoo Benton Harbor	12/30/36 12/01/70	-38°	Humboldt	12/30/17

SOURCE: Michigan Weather Service, special release.

TABLE XI-5. STATEWIDE WEATHER EXTREMES FOR MICHIGAN: PERIOD OF RECORD THROUGH JULY 1977

Item	Units	Station	Date
Temperature			
Highest daily	112°F	Mio	7-13-1936
Coldest daily	-51°F	Vanderbilt	2-09-1934
Precipitation			
Greatest daily	9.78"	Bloomingdale	9-01-1914
Greatest monthly	16.24"	Battle Creek	June 1883
Greatest annual	64.01"	Adrian	1881
(Detroit in 1855 had approximately 70 inches, exact amount unknown due to partial illegibility of records.)			
Snowfall			
Greatest daily	29"	Ishpeming	2-23-1922
Greatest monthly	115.3"	Calumet	Jan. 1950
Greatest seasonal	332.8"	Tahquamenon Falls	1976-1977
Greatest snowdepth	74"	Grand Marais	1-18-1918

SOURCE: Michigan Weather Service, special release.

TABLE XI-6. MEAN SNOWFALL IN INCHES AT SELECTED MICHIGAN WEATHER STATIONS, PERIOD OF RECORD: 1940-1969

Station	Jan.	Feb.	Mar.	April	May	June	Sept.	Oct.	Nov.	Dec.	Annual
Adrian	6.9	7.3	5.5	1.0	T	0	0	T	3.0	6.6	30.3
Allegan	20.7	12.5	9.2	1.0	T	0	T	.7	7.7	15.1	66.9
Alma	11.3	8.6	7.0	1.3	T	0	0	.2	3.5	7.0	38.9
Alpena City	17.2	13.4	10.6	3.1	.2	0	T	.3	7.1	14.4	66.3
Ann Arbor	7.3	6.6	5.4	1.1	.1	0	0	T	3.0	6.0	29.5
Atlanta	15.9	12.2	10.1	2.9	T	0	T	.5	7.9	13.5	63.0
Bad Axe	12.6	12.7	7.4	1.8	.1	0	0	.8	5.6	9.8	50.8
Battle Creek	11.0	9.4	7.3	1.7	T	0	T	.1	5.5	9.4	44.4
Bay City	11.3	9.3	5.8	.5	T	0	0	.2	3.8	7.8	38.7
Benton Harbor	17.0	13.2	6.5	1.0	T	0	0	.4	4.5	15.6	58.2
Big Rapids	18.7	13.3	10.2	1.4	T	0	T	.5	5.7	12.4	62.2
Bloomingdale	22.2	15.9	10.0	2.4	.1	0	T	1.3	10.0	20.2	82.1
Cadillac	16.9	12.7	12.0	4.4	.1	T	.1	.9	9.3	14.8	71.2
Caro	9.0	7.7	5.4	1.0	T	0	0	.2	3.9	6.9	34.1
Champion	23.8	22.2	23.7	8.3	1.7	0	T	3.8	24.8	30.6	138.9
Charlotte	10.5	8.1	6.3	1.4	T	0	T	.2	4.2	7.6	38.3
Chatham	25.2	23.0	14.4	6.3	1.1	T	.1	1.9	16.7	26.9	115.6
Cheboygan	19.1	13.4	13.4	3.6	.3	0	T	.9	7.2	17.1	75.0
Coldwater	7.8	8.7	6.8	1.8	.1	0	.1	.1	5.1	7.9	38.4
Dowagiac	16.6	13.9	8.5	1.2	T	0	T	.3	7.4	15.4	63.3
Dunbar Forest	22.9	16.8	13.5	3.7	.3	0	.2	1.7	12.1	25.0	96.2
East Jordan	25.4	13.7	9.9	2.3	.2	0	0	.9	11.9	22.7	87.0
East Lansing	10.0	8.6	6.4	1.5	T	0	T	.1	4.0	8.2	38.8
East Tawas	12.4	9.7	8.2	1.4	T	0	T	.1	3.9	8.2	43.9
Eau Claire	15.1	12.2	6.2	1.6	T	0	0	.7	6.4	13.8	56.0

TABLE XI-6. MEAN SNOWFALL IN INCHES AT SELECTED MICHIGAN WEATHER STATIONS, PERIOD OF RECORD: 1940-1969 (cont.)

Station	Jan.	Feb.	Mar.	April	May	June	Sept.	Oct.	Nov.	Dec.	Annual
Escanaba	12.3	9.9	9.5	2.8	.2	0	T	.1	4.8	11.1	50.7
Fayette-Sack Bay	17.6	14.0	12.2	4.4	.6	0	T	.2	6.2	14.9	70.1
Fife Lake	24.9	18.5	14.4	4.7	.1	0	.2	1.3	13.5	21.5	99.1
Gaylord	31.0	21.2	18.9	7.0	.9	0	.1	2.7	21.6	32.8	136.2
Gladwin	12.7	10.4	7.3	1.8	T	0	T	.3	4.3	9.8	46.6
Grand Haven	19.7	12.4	8.2	.9	T	0	T	.4	7.1	16.7	65.4
Grand Marais	32.4	24.0	16.0	5.6	.6	T	T	1.1	16.1	30.3	126.1
Grayling	22.8	15.4	14.7	4.9	.4	T	T	1.2	13.2	20.5	93.1
Greenville	12.8	9.1	7.7	1.4	T	0	0	.2	4.5	9.0	44.7
Gull Lake	12.7	10.8	7.4	1.1	T	0	T	.2	5.7	10.1	48.0
Hale Loud Dam	11.8	10.1	10.5	2.6	.1	0	T	.2	5.0	9.5	49.8
Harbor Beach	17.9	16.7	10.5	2.8	.4	0	T	.9	6.8	16.1	72.1
Harrisville	15.9	14.5	11.3	2.0	.1	0	0	.2	5.0	12.2	61.2
Hart	29.6	18.6	10.0	1.8	T	0	T	.5	7.7	20.9	89.1
Hastings	11.6	9.6	8.2	1.5	T	0	T	.3	5.4	9.5	46.1
Hesperia	24.6	13.3	9.6	1.9	T	0	0	.3	6.3	17.4	73.4
Higgins Lake	17.6	12.4	11.6	2.8	T	0	.1	1.0	9.7	14.7	69.9
Hillsdale	11.2	11.5	9.4	2.1	.1	0	.1	.1	6.4	11.8	52.7
Holland	24.6	17.2	10.5	1.5	.1	0	T	.8	8.4	21.1	84.2
Houghton-Calumet	50.1	30.7	22.6	7.4	1.5	.1	.2	2.5	23.6	44.5	183.2
Ionia	10.9	8.1	7.0	1.0	T	0	T	.3	4.4	8.0	39.7
Iron Mountain	12.8	11.0	10.5	4.2	.3	T	.1	.2	7.0	12.9	59.0
Ironwood	26.8	22.9	21.0	10.6	1.8	T	.1	3.5	25.1	30.1	141.9
Ishpeming	19.5	19.3	16.2	7.6	1.4	.2	T	2.1	17.0	21.1	104.4
Jackson	8.7	7.9	7.0	1.4	T	0	T	T	4.1	6.9	36.0

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Alger			
Munising - City Pumping Station	--	0	--
Kimberly-Clark NE of Mall	--	0	--
Allegan			
Otsego - Fire Station	--	40	--
Alpena			
Alpena - Lincoln School	48	--	--
Ella White School	43	--	--
Township Civic Building	46	--	--
Bay			
Bay City - Social Security Office	64	--	--
Bangor Twp. - Consumers Power			
Bangor Substation	--	20	--
Consumers Power, Euclid Rd.	--	20	--
Essexville - Garber Jr. HS	43	--	--
Bay County Juvenile Home	39	--	--
2017 Burns Ave.	65	20	--
Consumers Power, Barton Rd.	--	20	--
Hampton Twp. - Consumers Power			
Knight Road	--	20	--
Consumers Power, Hampton Rd.	--	20	--
Berrien			
Benton Harbor - City Hall/Fire Station	54	10	--
Ross Airfield	50	--	--
Benton Harbor Water Works	48	--	--
Three Oaks - O'Selka Field	43	--	--
Branch			
Coldwater - Lincoln Elementary School	43	--	--
No. 6 Well, South Sprague	--	20	--
Calhoun			
Albion - Mich. National Guard Armory	41	--	--
Bilicke Olds Dealers	115	--	--
Battle Creek - Central Fire Station	50	--	--
Post Div. Parking Lot	--	0	--
Charlevoix			
Charlevoix - Southwest on US 31	36	--	--
Court House, State & Antrim	52	--	--
Advance, Holzschu Residence	--	10	--
Chippewa			
Saulte Ste. Marie - Edison Building	33	--	--
Lake Superior State College	32	--	--
Delta			
Escanaba - State Building	30	--	--
Stephenson & 7th Ave.	48	--	--
Sheridan & 13th Ave.	53	--	--
22nd Street & 14th Ave.	45	--	--
Dispatch Office, End of 14th Ave.	60	--	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Delta (cont.)			
Escanaba - Water Plant Accelerator	43	10	--
Mead Paper, No. 1 Dam	41	0	--
Soo Hill School	28	--	--
No. 2 Dam	24	--	--
Wells School	41	0	--
County Rd. 414	--	0	--
Eaton			
Lansing - Substation, BOWL, Creyts near Mt. Hope	45	30	--
Emmet			
Petosky - Emmet County Building	36	--	--
Parkview Acres, Parkway Drive	60	--	--
Genesee			
Flint - Cook School	59	--	--
Police Training Academy	99	--	--
City Hall	58	--	--
Neithercut School	53	--	--
Potter School	51	--	--
A.P. Control Office	79	10	--
Ainsworth Jr. High School	50	--	--
Special Study, 4302 Western Ave.	63	--	--
Flint General Hospital	56	--	--
Product Integrity Building	61	--	--
Williams Community School	59	--	--
Parkland School	59	--	--
Fire Station No. 4	47	--	--
Engine Plant Building	58	--	--
Buick Personnel Building	45	--	--
Grand Traverse			
Traverse City - US Post Office	44	--	--
Gratiot			
Alma - Total-Leonard Jerome Road	63	40	--
Houghton			
Calumet - DNR Office	9	--	--
Centennial Heights - Old School Bldg.	10	--	--
Houghton - Fisher Hall Michigan Tech. University	19	--	--
Huron			
Harbor Beach - Neff Substation	--	20	--
Hercules, 124 N. First Street	--	30	--
Ingham			
East Lansing - Alton Street Pumping Station	49	10	--
Pesticide Research Center - Michigan State University	53	--	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Ingham (cont.)			
Lansing - High Street School	74	--	--
Public Health Building	51	--	--
No. 1 Fire Station	47	--	--
Substation, 3510 W Jolly Rd.	42	40	--
Fire Station No. 5	56	40	--
Red Cross Building	58	--	--
Lansing Country Club	51	30	--
North Lansing Hydro	62	50	--
Heald Place	52	50	--
Sycamore Park	45	40	--
Washington Park	54	30	--
Aaro Rental, 500 N Cedar Street	--	40	60
Cooley Gardens	--	70	--
700 W Kalamazoo	--	50	--
734 Orchard Glen	--	40	--
Catholic Central	--	50	--
Jackson			
Jackson - Jackson City Library	44	--	--
Kalamazoo			
Kalamazoo - Kalamazoo Health Department	53	10	40
Library, Nazareth College	43	--	--
Kent			
East Grand Rapids - 750 Lakeside Drive	38	--	--
Grand Rapids - Fire Training Station	30	30	70
Transamerican Title Building	50	--	--
Old Gas Company Building	69	--	--
WOOD TV, College & Cherry - SE	44	--	--
City Sewage Treatment Plant	73	--	--
Woodlawn Cemetry	42	--	--
Olson Residence	39	--	--
Knapp & Dean Lake Road	35	--	--
Kentwood - Valley Middle School	39	--	--
Wyoming - Wyoming City Hall	49	--	--
Macomb			
Armada - Armada Treatment Plant	38	--	--
Clinton Twp. - Robbie Hall El. School	56	--	--
East Detroit - Police Station	67	--	--
Fraser - Eisenhower Elementary School	59	--	--
Harrison Twp. - Fire Station No. 2	56	--	--
Mt. Clemens - Macomb Comm. Health Dept.	51	--	--
New Baltimore - Anchor Bay High School	41	--	--
New Haven - Post Office	66	--	--
Shelby Twp. - Malow Jr. High School	45	--	--
St. Clair Shores - SE Macomb County Health Department	59	--	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Macomb (cont.)			
Sterling Heights - Augus Elementary Sch.	57	--	--
Sterling Fire Station No. 2	60	--	--
Van Dyke Plant	--	20	--
Jerome Duncan Ford	--	60	--
Utica - Broadway Park Study	59	--	--
Warren - Warren City Hall	67	--	--
Chatterton Jr. High School	58	--	--
Warren Fire Station	--	40	50
Manistee			
Manistee - Sewage Plant	72	--	--
Filer City, Filer City Road at 25	40	--	--
East Lake	--	10	--
Hardy Salt	--	0	--
Marquette			
Big Bay - DNR Office	--	--	--
Marquette - Federal Building	29	10	20
Northern Michigan University	26	--	--
Shiros Pool, Presque Isle	17	10	--
Lake Shore Boulevard	25	--	--
Firestone Building	27	--	--
Presque Isle & Wright	--	10	--
Shiras Park	--	10	--
Henry Bothwell School	--	10	--
Morgan Heights - Acock Medical Facility	25	--	--
Palmer - Palmer Fire Department	34	--	--
Mason			
Ludington - P.M. School Fourth & Madison	39	--	--
Mason County Airport	54	--	--
Stearns Motor Inn	41	--	--
Pere Marquette School	--	40	--
Mecosta			
Big Rapids - Swan Technical Arts Bldg.	31	--	--
Menominee			
Menominee - St. Joseph Lloyd Hospital	43	--	--
Midland			
Coleman - City Hall	53	0	10
Midland Bullock Creek Fire Station	43	10	--
Midland Water Station	53	30	--
Dow Biochem Building	66	--	--
Dow Chemical	41	30	--
School Administration Building	47	--	--
Dow Corning	52	20	--
East Law School	--	30	--
Beathouse, South Pond	--	10	--
Parking Lot Ellsworth & Jerome	--	10	--
Austin Street	--	30	--
Midland - Community Center	45	20	30
Dow Corning Lot, S Saginaw Road	77	30	30
Dow High School, N Saginaw Road	35	0	20
Sanford - Sanford Elementary School	--	0	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Monroe			
Ash Twp. - Detroit Edison	55	20	--
Berlin Twp. - Detroit Edison	57	30	--
Dundee - Fire Station, 160 Main Street	67	--	--
Erie Twp. - Detroit Edison	54	30	--
Frenchtown - Detroit Edison, Monroe Road	66	20	--
Detroit Edison, Fermi Energy Center	65	30	--
Maybee - Detroit Edison, Baldwin Ave.	56	30	--
Monroe - A.P. Trailer	69	40	--
Monroe Company, Parking Lot	84	40	--
Union Camp, Pumphouse	--	60	--
Detroit Edison	--	30	--
George Cantrick School	56	--	--
Bell Telephone Garage	93	--	--
Monroe Twp. - Detroit Edison	53	--	--
Muskegon			
Cedar Creek Twp. - Consumers Power	--	20	--
Dalton Twp. - Consumers Power	--	20	--
Muskegon - Medical Art Center	39	--	--
Federal Building	39	--	--
City Police Station	45	10	30
Brookhaven Medical Center	43	--	--
Air Pollution Office	40	20	--
Celery Flats	--	30	--
Muskegon Community College	--	30	--
S.D. Warren, Bourdon Street	--	20	--
S.D. Warren, McCracken Street	--	20	--
Muskegon Heights - Post Office	58	--	--
Muskegon Twp. - No. 2 Fire Station	--	30	--
Oakland			
Pontiac - Consumers Power Building	55	--	--
N.E. Oakland Vocational Center	69	--	--
Royal Oak - City Hall	60	--	--
Southfield - South Oakland Health Center	49	20	--
Southfield & Lodge X-Way	--	30	70-90
Wixom - TTX Building, Ford Motor Co.	--	20	--
Ontonagon			
Ontonagon - Potato Storage Building	--	30	--
White Pine - Elementary School	17	--	--
Girncky Ville	17	0	--
S.E. Dry. Plant Property	21	--	--
Weather Station	16	0	--
Personnel Building	--	10	--
Porcupine Mountains State Bank	--	0	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Ottawa			
Blendon Twp. - Consumers Power	--	20	--
Grand Haven - City Pumping Station	--	40	--
Holland - Hope College	50	--	--
8th Street Pumping Station	--	40	--
Holland B.W.P. Substation	--	60	--
Springlake - Holiday Inn	37	--	--
West Olive - Consumers Power	--	10	--
Saginaw			
Carrolton - Union School	56	--	--
Saginaw - 2nd National Bank	84	40	80
Fire Station, 1305 Gratiot	45	--	--
Water Treatment Plant	46	--	--
Holiday Inn	50	--	--
Edith Baille School	59	--	--
Central Fire Station	51	--	--
Central Foundry No. 1	98	--	--
Central Foundry No. 2	50	--	--
Central Foundry No. 3	63	--	--
Central Foundry No. 4	43	--	--
St. Clair			
Grant Twp. - Lee Station	50	20	20
Kimball Twp. - English Substation	45	20	30
Marine City - Guy Center	66	--	--
St. Clair Power Plant	87	--	--
St. Clair Point Drive	72	--	--
Port Huron - Near the River	67	--	--
A.P. Trailer	68	40	100
Gratiot & Palms Road	43	--	--
Cable TV Office	70	--	--
Detroit Edison Office	--	30	--
S.E. Michigan Gas Substation	--	20	--
St. Clair - Michigan State Police Post	58	--	--
Davis & Busha Road	44	30	--
Washtenaw			
Ann Arbor - Ann Arbor Professional Bldg.	35	--	--
Milan - Detroit Edison	49	20	--
Ypsilanti - Health Department	54	--	--
Wayne			
Allen Park-Allen Park, 14700 Goddard	84	30	--
Dearborn - Salina School	143	--	--

TABLE XI-8. CONCENTRATIONS OF SUSPENDED PARTICULATE, SULFUR DIOXIDE, AND NITROGEN DIOXIDE AT SELECTED MICHIGAN AIR SAMPLING SITES, ANNUAL AVERAGES: 1977 (cont.)

(In micrograms per cubic meter)

County and site	Suspended particulate	Sulfur dioxide	Nitrogen dioxide
Wayne (cont.)			
Detroit - Osborn School	64	20	--
South Eastern School	74	30	--
Highland Park	75	30	70
Eastbrook School	74	40	50
Southwestern School	108	60	--
Stoepel Park	51	10	--
Station 07, 4901 Evergreen	57	20	--
Wayne County APCD	94	50	--
Ross Chemical Melville Street	120	--	--
Wayne Co. Air Pollution Central Division	--	--	60
536 Shelby Street	--	--	--
Bank of Commonwealth	--	--	--
Gibraltar - Detroit Edison, Woodruff Rd.	73	20	--
Grosse Ile - Shephard Residence	69	--	--
Livonia - Madonna College	50	20	--
New Boston - 19056 Shook Road	60	10	--
River Rouge - 315 Genesee	94	30	--
Trenton - Station 010	65	--	--
2800 3rd Street	n.a.	n.a.	n.a.
2601 Veterans Parkway	--	20	--
Romulus - Romulus Twp. - Middle Belt	70	--	--
Westland - 38155 Cherry Hill	56	20	--
Wyandotte - Fire Station	69	--	--

SOURCE: Michigan Department of Natural Resources, Air Quality Report, 1977 (Lansing: 1978), Appendices A,B, and C.
NOTE: For particulate, the annual geometric mean of individual observations; for sulfur dioxide and nitrogen dioxide, the arithmetic mean of individual observations. A county is considered to be in violation of the standards if, at any site, the annual average is exceeded or two or more excursions of an applicable 24-hour, 8-hour, or 1-hour average are found. The Michigan Air Sampling Network has 400 monitoring sensors at 250 sites in 38 counties. The ones indicated in this table have devices that measure the air content of all three impurities, suspended particulates, sulfur dioxide, and nitrogen dioxide. Stations measuring only suspended particulates or suspended particulates and sulfur dioxide are not listed.

TABLE XI-6. MEAN SNOWFALL IN INCHES AT SELECTED MICHIGAN WEATHER STATIONS, PERIOD OF RECORD: 1940-1969 (cont.)

Station	Jan.	Feb.	Mar.	April	May	June	Sept.	Oct.	Nov.	Dec.	Annual
Kalamazoo	18.0	14.9	10.7	2.3	T	0	0	.8	9.0	14.0	69.7
Kenton U.S. Forest	18.7	14.1	14.2	5.8	.7	T	.2	1.7	16.4	19.8	91.6
Lake City	15.9	12.5	11.9	4.3	.2	T	T	1.0	10.3	13.1	69.2
Lapeer	9.8	10.3	8.0	2.1	T	0	0	.4	4.7	7.4	42.7
Ludington	22.6	15.3	7.8	1.8	T	0	T	.4	7.1	17.0	72.0
Mackinaw City	18.7	14.0	12.6	3.2	T	0	T	.4	7.6	17.1	73.6
Manistee	26.9	17.5	9.7	1.6	T	0	T	.2	7.3	18.5	81.7
Manistique	16.6	13.9	11.2	3.5	.3	0	.1	1.0	8.1	16.4	71.1
Midland	10.3	8.7	5.9	1.0	T	0	T	.4	3.4	6.6	36.3
Milford	10.1	9.7	7.6	2.6	.2	0	T	.2	4.8	8.6	43.8
Mio	14.7	11.6	12.1	3.4	.2	0	.1	.6	7.2	11.8	61.7
Monroe	6.6	7.5	6.0	.9	T	0	0	T	2.5	7.2	30.7
Mount Clemens	7.3	6.8	5.1	.9	T	0	0	T	2.8	6.6	30.0
Mt. Pleasant	9.5	7.2	5.1	1.3	T	0	T	.2	3.7	6.1	33.1
Munising	33.6	25.7	15.8	8.1	.8	T	.2	1.9	18.1	33.7	137.9
Newaygo Hardy Dam	16.5	11.3	9.2	1.8	.1	0	T	.4	5.8	11.9	57.0
Newberry	24.6	19.9	14.3	4.1	.4	T	.1	1.2	13.3	25.3	103.2
Onaway State Park	19.4	14.2	11.5	3.6	.1	T	.1	.6	9.0	15.9	74.4
Ontonagon	28.2	15.9	12.4	4.8	.7	T	.1	.9	14.7	26.5	104.2
Owosso	10.2	9.4	7.2	1.6	T	0	0	.2	3.6	7.4	39.6
Paw Paw	19.0	15.9	9.8	2.1	.1	0	T	1.1	9.2	17.6	74.8
Pellston	24.8	16.0	14.7	3.5	.3	0	T	1.8	13.0	24.1	98.2
Pontiac	8.0	7.3	6.0	.9	T	0	0	.1	3.2	6.8	32.3
Port Huron	9.6	7.7	5.9	.9	T	0	0	.3	3.9	7.6	35.9
Saginaw	10.4	9.7	6.7	1.4	T	0	T	.2	4.5	8.7	41.6

TABLE XI-6. MEAN SNOWFALL IN INCHES AT SELECTED MICHIGAN WEATHER STATIONS, PERIOD OF RECORD: 1940-1969 (cont.)

Station	Jan.	Feb.	Mar.	April	May	June	Sept.	Oct.	Nov.	Dec.	Annual
St. Johns	10.2	8.1	6.1	1.8	T	0	0	.2	4.1	6.9	37.4
Sandusky	12.1	10.9	8.9	2.4	.2	0	T	.3	4.4	10.2	49.4
Seney	30.8	23.0	14.3	3.8	.6	0	.1	.8	17.2	32.5	123.1
South Haven	13.8	11.9	8.1	1.1	T	0	0	.4	4.5	12.9	52.7
Stambaugh	13.5	11.4	11.4	5.9	1.2	T	.1	1.0	11.2	14.4	70.1
Standish	11.6	10.0	7.2	1.2	T	0	0	.1	4.1	8.3	42.5
Three Rivers	7.0	7.6	5.7	1.1	T	0	0	.2	4.2	8.4	34.2
Traverse City	23.3	16.4	13.2	2.6	.1	0	T	.5	9.9	18.6	84.6
Vanderbilt	25.0	16.2	14.6	4.3	.3	T	.1	1.2	12.6	22.8	97.1
Watersmeet	17.9	13.8	13.5	6.1	.9	0	.2	2.4	17.4	21.1	93.3
West Branch	13.6	12.5	9.7	2.2	T	0	T	.2	6.2	11.1	55.5
Willis	7.9	7.5	6.4	1.3	T	0	T	T	3.7	7.1	33.9

SOURCE: Michigan Weather Service, Michigan Snow Depths.

T.: trace

TABLE XI-7. TORNADOES, TORNADO DAYS, AND TORNADO DEATHS IN MICHIGAN: 1918-1975

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Tornadoes													
1918-1967	1	1	8	54	47	52	23	20	19	7	2	0	234
1961-1970	0	0	2	45	8	10	12	17	9	4	0	0	107
1971-1975	0	1	0	16	17	42	24	14	8	0	1	0	123
Tornado days													
1918-1967	1	1	3	21	24	38	19	19	17	6	2	0	151
1961-1970	0	0	2	14	4	8	11	11	7	4	0	0	61
1971-1975	0	1	0	8	10	19	12	11	5	0	1	0	67
Tornado deaths													
1918-1967	0	0	14	74	17	126	3	2	1	0	1	0	238
1961-1970	0	0	0	53	11	1	0	0	0	0	0	0	65
1971-1975	0	0	0	2	1	1	0	0	0	0	0	0	4
Summary Totals (1918-1975)													
Tornadoes	1	2	9	76	64	100	52	43	30	8	3	0	388
Tornado days	1	2	4	34	34	61	35	36	24	7	3	0	241
Tornado deaths	0	0	14	76	18	128	3	2	1	0	1	0	243

SOURCE: Michigan Weather Service, special release.

NOTE: Touchdowns only; excludes funnel clouds and water spouts.

TABLE XI-9. STATE PARK USE AND TURNAWAY IN MICHIGAN: 1968-1978

Year	Number of day users[a]	Number of camper days[a]	Total attendance[a]	Number of camp permits	Camp turnaways[b]	Day use turnaways[b]
1968	n.a.	n.a.	17,704	389,402	42,615	72,892
1969	n.a.	n.a.	18,956	409,140	75,527	57,289
1970	14,384	6,108	20,492	464,541	86,032	42,206
1971	15,419	6,495	21,914	491,807	84,258	52,465
1972	12,941	6,251	19,191	485,616	59,730	27,719
1973	13,606	6,248	19,849	496,812	57,445	25,378
1974	13,358	6,128	19,486	471,313	71,711	31,973
1975	14,768	5,598	20,366	462,123	70,962	46,708
1976	16,132	5,882	22,014	482,787	77,218	35,085
1977	n.a.	n.a.	22,344	480,133	79,107	40,154
1978	n.a.	n.a.	23,656	475,551	66,613	65,708

SOURCE: Michigan Department of Natural Resources, special release.

a. Figures in thousands.

b. Number of vehicles.

n.a.: not available

TABLE XI-10. STATE FOREST CAMPGROUND USE: 1968-1978

Year	Number of camps	Number of campers	Camper days	Number of day users
1968	45,000	175,569	691,816	173,525
1969	56,746	220,117	835,341	220,535
1970	68,623	268,164	995,974	329,934
1971	73,714	284,779	1,083,684	352,796
1972	70,899	268,099	996,409	356,170
1973	79,114	292,746	1,040,361	391,782
1974	77,716	288,243	1,070,023	396,741
1975	82,359	283,232	1,059,659	395,195
1976	88,024	304,784	1,122,527	529,000
1977	90,227	311,539	1,147,905	n.a.
1978	85,806	299,197	1,067,043	529,246

SOURCE: Michigan Department of Natural Resources, special release.

n.a.: not available.

TABLE XI-11. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1976-1978

Name	Post office location	Acreage	Number of campsites	Attendance 1976	1977	1978
		Upper Peninsula				
Baraga	Baraga US-41	56	137	79,315	68,371	55,535
Bewabic	Crystal Falls US-2	200	144	49,739	57,426	60,975
Brimley	Brimley M-221	151	270	200,040	155,592	172,051
Craig Lake[a]	n.a.	5,784	n.a.	n.a.	n.a.	n.a.
Detour[a]	St. Ignace M-34	403	22	n.a.	n.a.	n.a.
Fayette	Fayette US-2	365	80	145,971	135,254	134,664
Fort Wilkins	Copper Harbor US-41	199	165	322,312	306,845	293,327
Indian Lake	Manistique M-149	567	300	119,957	135,977	131,588
Lake Gogebic	Marenisco M-64	361	165	66,336	69,458	85,250
McLain	Hancock M-203	401	90	154,242	169,280	195,427
Muskallonge Lake	Newberry M-123	217	179	76,211	79,016	71,004
Palms Book[a]	Manistique M-149	308	(b)	68,032	70,950	69,831
Porcupine Mtns	Ontonagon M-107	58,332	199	319,830	343,545	365,698
Straits	St. Ignace I-75	181	318	317,053	293,424	357,435
Tahquamenon Falls	Paradise M-123	21,241	319	568,226	597,692	600,634
Twin Lakes	Winona M-26	175	62	34,456	41,000	34,700
Van Riper	Champion US-41	1,044	226	121,923	113,160	105,682
J.W. Wells	Cedar River M-35	974	155	94,811	98,129	104,871
		Northern Lower Peninsula				
Aloha	Cheboygan M-212	91	284	201,334	214,300	211,839
Bay City	Bay City M-247	196	285	241,680	194,308	224,214
Burt Lake	Indian River I-75	405	360	207,997	197,733	218,160
Cheboygan	Cheboygan US-23	932	78	47,327	47,659	48,555

TABLE XI-11. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1976-1978 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1976	1977	1978
		Northern Lower Peninsula (cont.)				
Clear Lake	Atlanta M-33	290	200	103,362	93,142	91,907
Fisherman's Island	n.a.	2,538	n.a.	n.a.	n.a.	40,601
Gladwin	Gladwin M-18	381	45	52,250	47,686	56,035
Harrisville	Harrisville US-23	94	229	122,110	118,477	120,229
Hartwick Pines	Grayling M-93	9,221	46	232,773	250,216	248,291
Hoeft	Rogers City US-23	301	144	57,370	66,142	61,605
Interlochen	Interlochen M-137	187	550	315,602	337,183	345,218
Leelanau[a]	Glen Arbor Co. Rd. 201	1,644	42	201,967	131,814	146,021
Ludington	Ludington M-116	4,157	398	737,396	762,822	810,252
Mears	Pentwater US-31	50	179	337,788	359,331	375,024
Mitchell	Cadillac M-115	32	270	239,019	217,973	205,262
Newaygo	Newaygo M-37	257	99	35,204	36,623	39,650
North Higgins Lake	Roscommon M-18, M-76	429	204	140,515	166,553	195,650
Onaway	Onaway M-211	158	101	84,294	92,422	91,253
Orchard Beach	Manistee M-110	201	175	93,131	108,858	103,566
Otsego Lake	Gaylord I-75	62	203	205,647	209,698	211,868
Petoskey	Petoskey US-31	305	90	202,107	189,107	261,159
Rifle River	Lupton M-33	4,329	159	109,490	104,328	110,542
Silver Lake	Mears US-31	2,686	249	697,290	887,948	764,870
South Higgins Lake	Roscommon US-27	305	504	417,261	405,569	395,792
Sturgeon Point[a]	n.a.	70	n.a.	n.a.	n.a.	n.a.
Tawas Point	E. Tawas US-23	175	202	279,294	240,618	262,029
Traverse City	Traverse City US-31	39	330	339,052	302,044	362,086
White Cloud	White Cloud M-20	89	80	85,839	88,152	72,574
Wilderness	Carp Lake US-31	7,514	210	173,216	165,147	159,057

TABLE XI-11. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1976-1978 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1976	1977	1978
		Northern Lower Peninsula (cont.)				
Wilson	Harrison I-75	36	160	201,524	128,295	137,261
Young	Boyne City M-75	563	293	151,905	152,432	157,170
		Southern Lower Peninsula				
Algonac	Algonac M-29	1,024	376	244,334	270,234	268,839
Bald Mountain	Lake Orion M-24	3,118	25	512,728	468,312	489,959
Brighton	Howell I-96	4,826	222	264,008	272,460	277,103
Cambridge	Brooklyn US-12	183	(c)	17,090	n.a.	n.a.
Dodge #4	Pontiac M-59	136	(b)	457,087	475,832	462,220
Duck Lake[a]	n.a.	610	n.a.	47,518	49,835	52,482
Fort Custer	Augusta I-94	2,962	(b)	88,932	97,794	66,146
Grand Haven	Grand Haven US-31	48	170	750,533	756,368	761,250
Grand Mere[a]	n.a.	393	n.a.	n.a.	n.a.	n.a.
W. J. Hayes	Onsted US-12	654	210	587,395	601,070	732,041
Highland	Milford M-59	5,504	25	241,791	333,316	336,888
Hoffmaster	Muskegon US-31	1,043	333	262,845	303,550	376,625
Holland	Holland US-31	143	342	1,387,315	1,358,617	1,695,926
Holly	Holly I-75	7,446	79	543,248	554,984	665,835
Ionia	Saranac M-66	3,998	0	90,574	60,720	52,092
Island Lake	Brighton I-96	3,466	25	287,151	292,378	315,901
Lakeport	Port Huron US-23	566	256	259,081	285,004	317,349
Maybury	Northville	944	0	135,213	96,104	125,591
Metamora-Hadley	Metamora M-24	682	211	242,362	309,420	214,212
Muskegon	North Muskegon M-213	1,125	357	475,033	446,938	486,770
Ortonville	Ortonville M-75	4,167	70	366,363	291,296	227,721
Pinckney	Pinckney M-36	9,788	270	591,062	564,077	478,146
Pontiac Lake	Pontiac M-59	3,757	25	389,397	386,548	382,342

TABLE XI-11. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1976-1978 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1976	1977	1978
		Southern Lower Peninsula (cont.)				
Port Crescent	Port Austin M-25	655	181	122,326	128,693	139,008
Proud Lake	Milford I-96	3,515	150	340,026	391,470	424,782
Rochester-Utica	Utica M-59	1,242	(b)	423,938	465,099	500,146
Sanilac[a]	Port Austin US-25	112	19	11,212	12,854	16,158
Seven Lakes	Fenton US-23, I-75	1,379	(c)	56,439	75,658	159,172
Sleeper	Caseville M-25	1,003	271	156,126	183,415	185,891
Sleepy Hollow	Lansing US-27	2,678	(c)	180,771	199,342	204,828
Sterling	Monroe I-75	997	192	461,688	518,975	760,946
Van Buren	South Haven I-196	326	197	209,518	238,224	272,781
Warren Dunes	Sawyer I-94	1,502	249	1,278,848	1,256,654	1,322,651
Waterloo	Chelsea I-94	17,854	434	853,487	933,778	887,613
Yankee Springs	Middleville M-37	5,001	345	626,182	613,089	630,364

SOURCE: Michigan Department of Natural Resources, special release, and Michigan Tourist Council, special release.

a. Craig Lake administered by Van Piper; Detour by Straits; Palms Book by Indian Lake; Leelanau by Traverse City; Sturgeon Point by Harrisville; Duck Lake by Muskegon; Grand Mere by Warren Dunes; and Sanilac by Port Crescent.

b. No camping permitted

c. Under development.

n.a.: not available.

TABLE XI-12. LOCATION, ACREAGE, NUMBER OF CAMPSITES AND CAMPGROUNDS, AND CAMPER DAYS OF MICHIGAN STATE FORESTS: 1976-1978

Forest	Location of forestry field office	Acreage	Number of campsites	Number of campgrounds	Camper days 1976	1977	1978
			Upper Peninsula				
Mishwabic	Twin Lakes	61,174	9	1	2,978	2,416	2,554
Baraga	Baraga	67,628	51	5	11,372	12,821	9,906
Iron Range	Crystal Falls	78,400	53	3	7,083	7,168	8,500
Ford River	Felch	153,470	36	5	9,102	9,979	8,843
Sturgeon River	Norway	64,649	10	1	2,227	3,083	1,962
Michigamme	Negaunee	115,700	17	3	7,779	8,442	9,945
Escanaba River	Gwinn	143,460	82	6	22,271	23,928	20,334
Menominee	Stephenson	90,070	13	2	3,576	3,403	3,708
Bay de Noc	Escanaba	81,325	62	4	19,583	20,556	16,563
Manistique R.	Manistique	142,280	26	3	6,374	7,678	5,286
Grand Sable	Shingleton	200,721	87	9	28,926	28,459	29,773
Lake Superior	Newberry	176,500	276	17	95,828	99,904	94,055
Tahquamenon R.	Newberry	187,274	57	4	7,135	10,100	10,534
Mackinac	Naubinway	183,885	199	8	66,558	60,694	71,132
Munuscong	Sault Ste. Marie	120,980	66	3	24,271	21,980	22,898
TOTAL					315,063	320,611	315,993
			Northern Lower Peninsula				
Hardwood	Indian River	158,000	54	2	23,291	22,078	23,897
Black Lake	Onaway	123,176	137	5	42,788	51,296	53,390
Jordan River	Boyne City	86,418	77	3	30,992	27,485	10,398
Otsego	Gaylord	55,830	83	3	25,241	23,810	32,282
Thunder Bay	Atlanta	132,118	117	6	45,710	45,609	37,546

TABLE XI-12. LOCATION, ACREAGE, NUMBER OF CAMPSITES AND CAMPGROUNDS, AND CAMPER DAYS OF MICHIGAN STATE FORESTS: 1976-1978 (cont.)

Forest	Location of forestry Field office	Acreage	Number of campsites	Number of campgrounds	Camper days 1976	1977	1978
		Northern Lower Peninsula (cont.)					
Pigeon River C.	Blue Lakes Rd.	82,785	94	7	39,974	54,928	39,336
Alpena	Alpena	51,654	60	2	18,810	19,148	19,316
Betsie River	Beulah	86,494	151	7	58,134	60,199	53,988
Fife Lake	Traverse City	103,222	220	11	74,939	85,996	65,765
Pere Marquette	Baldwin	60,734	60	6	24,020	24,716	21,847
AuSable	Grayling	152,785	240	15	104,698	100,979	103,263
Houghton Lake	Houghton Lake Hgts	188,802	105	5	41,839	30,763	28,127
Oscoda	Mio	77,959	136	6	52,195	48,252	46,594
Ogemaw	West Branch	80,550	70	2	8,961	11,363	11,177
Kalkaska	Kalkaska	138,553	77	4	41,242	53,311	51,918
Missaukee	Houghton Lake Hgts	93,207	127	5	58,568	53,093	55,100
Chippewa R.	Paris	72,622	88	6	58,130	57,586	53,969
Tittabawassee R.	Gladwin	153,000	127	5	57,932	56,682	46,073
TOTAL					807,464	827,294	753,986
GRAND TOTAL					1,122,527	1,147,905	1,067,043
Camping figures based on registrations plus estimates of noncampers					1,651,527	n.a.	n.a.

SOURCE: Michigan Department of Natural Resources, special release.

n.a.: not available.

TABLE XI-13. VISITOR DAYS OF USE OF NATIONAL FORESTS LOCATED IN MICHIGAN AND THE UNITED STATES: 1967-1978

(In millions of visitor days)

Year	Michigan				United States total
	Huron-Manistee	Hiawatha	Ottawa	Total	
1967	1,298.1	1,063.3	679.6	3,041.0	149,647.1
1968	1,538.8	1,352.9	777.6	3,669.3	156,655.3
1969	1,657.2	1,619.8	868.1	4,145.1	162,838.1
1970	1,664.0	1,587.6	991.2	4,242.8	172,554.5
1971	1,770.8	1,739.8	1,064.0	4,574.6	178,109.5
1972	1,901.3	1,704.1	1,117.0	4,722.4	183,958.3
1973	1,842.1	1,854.9	1,187.8	4,884.8	188,174.6
1974	1,955.6	1,821.9	1,240.5	5,018.0	192,915.8
1975	1,940.0	2,002.7	1,208.4	5,151.1	199,200.8
1976	2,154.8	2,030.3	1,289.6	5,474.7	199,928.1
1977	2,378.0	1,833.6	1,334.1	5,545.7	204,797.4
1978	2,390.2	1,749.2	1,363.4	5,502.8	218,496.3

SOURCE: U.S. Forest Service, special release.

TABLE XI-14. VISITORS TO ISLE ROYALE NATIONAL PARK AND TO PICTURED ROCKS AND SLEEPING BEAR DUNES NATIONAL LAKESHORES: 1967-1978

Year	Isle Royale	Pictured Rocks[a]	Sleeping Bear Dunes[b]
1967	9,529	--	--
1968	10,065	--	--
1969	10,403	--	--
1970	14,411	--	--
1971	15,868	--	--
1972	16,116	287,094[c]	--
1973	15,439	296,537	--
1974	13,934	298,856	--
1975	16,818	279,262	775,000
1976	16,000	317,000	800,000
1977	16,676	297,189	837,976
1978	16,415	289,902	759,000

SOURCES: Isle Royale National Park, Pictured Rocks National Lakeshore, and Sleeping Bear Dunes National Lakeshore, special releases.

a. Records not available prior to 1972.

b. Records not available prior to 1975.

c. Eleven-month total, beginning with February.

TABLE XI-15. NUMBER OF RESIDENT AND NONRESIDENT HUNTING LICENSES ISSUED IN MICHIGAN: 1963-1977

Year	Small game		Deer-firearm		Deer-bow	
	Resident[a]	Nonresident	Resident[a]	Nonresident	Resident[a]	Nonresident
1963	612,561	4,282	506,578	9,142	37,258	3,508
1964	630,692	4,258	552,008	11,591	41,759	3,735
1965	627,615	4,631	592,660	12,833	47,975	4,185
1966	637,927	4,735	561,401	12,911	47,992	4,200
1967	603,916	5,157	577,999	11,249	54,315	3,759
1968	575,013	5,047	609,120	14,360	59,039	4,061
1969	569,696	5,687	641,863	14,990	61,342	4,043
1970	581,855	6,202	616,173	12,729	58,234	3,584
1971	465,201	5,683	492,024	10,189	35,514	2,985
1972	445,589	6,396	455,304	9,108	30,400	2,576
1973	515,101	7,803	494,567	10,169	38,287	2,735
1974	564,476	8,609	551,928	11,820	46,269	2,851
1975	558,520	8,866	587,091	13,710	54,391	3,582
1976	503,165	7,601	535,550	13,781	57,184	4,287
1977	436,091	7,847	507,146	14,990	62,401	5,464

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes senior resident.

TABLE XI-16. NUMBER OF RESIDENT AND NONRESIDENT FISHING LICENSES ISSUED IN MICHIGAN: 1963-1977

Year	Resident		Nonresident		Trout stamp		
	Senior	Annual[a]	7-day	Annual	One day[b]	Three day[b]	Total
1963	n.a.	711,331	81,201	105,216	n.a.	n.a.	180,160
1964	n.a.	705,209	73,924	108,023	n.a.	n.a.	188,381
1965	n.a.	723,189	73,188	111,876	n.a.	n.a.	197,733
1966	81,738	661,706	70,332	113,321	n.a.	n.a.	209,114
1967	72,679	708,457	72,624	119,677	n.a.	n.a.	230,546
1968	85,998	801,214	51,778	126,458	12,488	n.a.	294,000
1969	92,301	806,532	46,273	128,614	11,943	n.a.	282,523
1970	92,932	807,703	50,121	133,196	14,916	n.a.	303,774
1971	97,169	837,462	53,164	137,460	17,470	n.a.	313,432
1972	99,540	811,393	34,977	127,218	12,586	40,273	308,630
1973	103,805	832,539	35,175	131,671	14,963	56,144	311,565
1974	91,938	871,557	33,832	131,516	15,267	64,183	324,865
1975	95,206	916,571	36,907	137,919	17,851	71,421	352,207
1976	95,331	817,088	—	106,028	—	188,381[c] —	278,130
1977	94,659	770,299	—	99,971	—	216,593 —	253,235

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes 7-day licenses issued during 1968-1972.
b. Resident and nonresident.
c. Daily
n.a.: not applicable.

TABLE XI-17. ACTIVE SKI AREAS IN MICHIGAN, BY COUNTY: 1978-1979

County	Area	Ropes	Surface Tows	Chairs
Alcona	Mount Maria	3	0	1
Alger	Hiawatha Slopes	2	0	0
	Maple Mountain	1	0	0
Antrim	Mount Mancelona	1	1	0
	Schuss Mountain	1	1	3
	Shanty Creek Lodge	1	1	2
Baraga	Covington twp Rec. Area	1	0	0
Barry	Middleville Ski Area	5	0	0
Benzie	Crystal Mountain Resort	2	0	3
Berrien	Royal Valley Ski Resort	5	1	1
Cass	Swiss Valley	9	2	0
Charlevoix	Boyne Mountain	3	0	8
	Mount McSauba	2	0	0
	Thunder Mountain	1	0	2
Chippewa	Minneapolis Woods	1	0	0
Clare	Major Mountain Ski Club	2	0	0
	Mott Mountain	4	0	1
	Snowsnake Mountain	6	1	0
Crawford	Grayling Recreation Authority	4	1	0
	Rippling Waters	2	0	0
	Skyline Ski Club	10	0	1
Delta	Gladstone Sports Park	4	1	0
Dickinson	Pine Mountain Corp.	1	0	3
	Vulcan USA	1	0	2
Emmet	Boyne Highlands	1	1	6
	Kiwanis Sports Park	1	0	0
	Nub's Nob	1	1	4
	Petoskey Winter Sports	1	0	0
Gladwin	Sugar Springs	1	0	0
Gogebic	Big Powderhorn	2	0	5
	Black Jack	2	0	3
	Gogebic 4-H Ski Area	1	0	0
	Indianhead Mountain	0	3	4
	Mount Zion	2	1	0
Grand Traverse	Hickory Hills	5	0	0
	Timberlee Recreation Area	1	0	2
	Traverse City Holiday	6	2	0
Houghton	Mount Ripley Ski Area	0	1	1
Ingham	Lansing Ski Club	4	1	1
Iron	Brule Mountain	3	1	1
	Crystella Ski Hill	2	0	0
	Mineral Hill Ski Chalet	1	0	0

TABLE XI-17. ACTIVE SKI AREAS IN MICHIGAN, BY COUNTY: 1978-1979 (cont.)

County	Area	Ropes	Surface Tows	Chairs
Kalamazoo	Kalamazoo Country Club	1	0	0
	Kalamazoo Ski Club	2	0	0
Kent	Cannonsburg Ski Area	10	2	3
	Grand Rapids Ski Club	3	0	0
	Pando Ski Area	6	0	0
	Ramble Wood Apt.	1	0	0
Leelanau	Bahle Park	1	0	0
	Braman Hill Rec. Area	1	0	0
	Myles-Kimmerly	1	0	0
	Sugar Loaf Village	0	1	5
Lenawee	Irish Hills Sports Park	2	0	0
Livingston	Kandahar Ski Club	8	1	0
	Mount Brighton	9	0	6
Luce	Big Valley	2	0	0
Marquette	Al Quall Rec. Area	2	0	0
	Cliff's Ridge Ski Area	1	2	1
	Mount Mesnard	2	0	0
	Republic Ski Area	1	0	0
Mason	Ward Hills Ski Area	6	0	0
Mecosta	Canadian Lakes Club	3	0	0
Missaukee	Missaukee Mountain	3	0	0
Montcalm	Tower Mountain	1	0	0
	Winter Skol	5	1	0
Montmorency	Sheridan Valley	1	2	0
Oakland	Alpine Valley Ski Area	10	0	9
	Mount Grampian	4	0	1
	Mount Holly Ski Area	6	0	6
	Pine Knob Ski Resort	6	0	5
	Teeple Hill Ski Area	3	0	0
Ontonagon	Porcupine Mountains	2	3	1
Oscoda	Cole Creek Lodge	2	0	0
	Mio Mountain	4	0	0
Otsego	Michaywe Slopes	1	2	1
	Otsego Ski Club	2	0	4
	Sylvan Knob	3	4	1
	Tyrolean Hills	2	0	1
Ottawa	Grand Haven Ski Bowl	2	0	0
	Grand Valley State Col.	2	0	0
Saginaw	Bintz Apple Mountain	10	0	0
St. Clair	Black Forest	4	0	0
Van Buren	Timber Ridge Ski Area	6	1	2
Wexford	Briar Hill	2	0	0
	Caberfae Ski Area	13	6	2
	Diggins Hill	2	0	0

SOURCE: Michigan Department of Labor, special release.

TABLE XI-18. LAND AREA OF MICHIGAN, BY COUNTY: 1970

(In square miles)

County	Land area	County	Land area
Alcona	678	Lake	571
Alger	905	Lapeer	658
Allegan	826	Leelanau	345
Alpena	565	Lenawee	753
Antrim	476	Livingston	572
Arenac	367	Luce	906
Baraga	901	Mackinac	1,014
Barry	554	Macomb	480
Bay	447	Manistee	553
Benzie	316	Marquette	1,828
Berrien	580	Mason	490
Branch	506	Mecosta	560
Calhoun	709	Menominee	1,038
Cass	491	Midland	520
Charlevoix	414	Missaukee	565
Cheboygan	721	Monroe	557
Chippewa	1,591	Montcalm	712
Clare	571	Montmorency	555
Clinton	572	Muskegon	501
Crawford	561	Newaygo	849
Delta	1,177	Oakland	867
Dickinson	757	Oceana	536
Eaton	571	Ogemaw	571
Emmet	461	Ontonagon	1,316
Genesee	642	Osceola	581
Gladwin	503	Oscoda	563
Gogebic	1,107	Otsego	527
Grand Traverse	462	Ottawa	563
Gratiot	566	Presque Isle	648
Hillsdale	600	Roscommon	521
Houghton	1,017	Saginaw	814
Huron	819	St. Clair	734
Ingham	559	St. Joseph	506
Ionia	575	Sanilac	961
Iosco	544	Schoolcraft	1,181
Iron	1,171	Shiawassee	540
Isabella	572	Tuscola	815
Jackson	698	Van Buren	603
Kalamazoo	562	Washtenaw	711
Kalkaska	566	Wayne	605
Kent	857	Wexford	559
Keweenaw	538		
		TOTAL	56,817

SOURCE: Bureau of the Census, U.S. Census of Population, 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Final Report PC(1)-A24, Table 9.

TABLE XI-19. ACRES OF LAND IN MICHIGAN OWNED BY THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND THE U.S. FOREST SERVICE, BY COUNTY: 30 JUNE 1973

(In acres)

County	Gross area in county	Owned by DNR		Owned by U.S. Forest Service	
		Acreage	Percentage of gross area	Acreage	Percentage of gross area
Alcona	435,247.34	8,469.45	1.95	108,904.00	25.00
Alger	589,948.58	96,536.30	16.36	116,945.00	19.80
Allegan	529,873.41	44,624.36	8.42	--	--
Alpena	371,153.39	43,772.70	11.79	--	--
Antrim	305,558.44	43,476.79	14.22	--	--
Arenac	238,097.58	29,012.80	12.34	--	--
Baraga	583,805.56	74,860.30	12.82	44,352.00	7.59
Barry	354,029.41	23,347.50	6.59	11.00	.01
Bay	284,626.69	3,267.34	1.15	--	--
Benzie	204,192.43	62,190.45	30.45	--	--
Berrien	362,981.63	873.72	.24	--	--
Branch	320,719.92	49.75	.02	--	--
Calhoun	447,452.44	133.31	.03	--	--
Cass	316,393.00	3,386.76	1.07	--	--
Charlevoix	266,224.94	54,872.98	20.61	26.00	.01
Cheboygan	462,439.73	180,739.99	39.00	32.00	.01
Chippewa	999,960.22	225,777.60	22.50	223,848.00	22.30
Clare	364,756.51	48,783.73	13.37	--	--
Clinton	364,972.96	8,833.26	2.42	--	--
Crawford	359,845.89	165,508.72 29,048.16[a]	45.90 8.07[a]	45,927.00	12.76
Delta	748,915.44	61,369.56	8.19	245,561.00	32.70
Dickinson	491,925.09	219,791.72	44.60	--	--
Eaton	366,033.45	7.70	.01	--	--
Emmet	300,855.39	75,211.34	24.99	--	--
Genesee	403,979.92	240.73	.06	8.00	.02

TABLE XI-19. ACRES OF LAND IN MICHIGAN OWNED BY THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND THE U.S. FOREST SERVICE, BY COUNTY: 30 JUNE 1973 (cont.)

(In acres)

County	Gross area in county	Owned by DNR		Owned by U.S. Forest Service	
		Acreage	Percentage of gross area	Acreage	Percentage of gross area
Gladwin	330,664.78	85,575.44	25.8	--	--
Gogebic	712,032.76	11,005.89	1.54	290,346.00	40.70
Grand Traverse	299,277.93	66,070.34	22.07	642.00	.21
Gratiot	364,623.63	11,740.29	3.21	--	--
Hillsdale	386,087.50	2,404.18	.62	--	--
Houghton	647,466.14	43,012.14	6.64	144,432.00	22.30
Huron	536,982.63	3,654.40	.68	--	--
Ingham	355,272.91	4,394.30	1.24	--	--
Ionia	366,291.10	9,131.98	2.49	--	--
Iosco	354,821.51	24,648.08	6.94	102,628.00	28.90
Iron	760,143.11	84,487.92	11.11	171,509.00	22.50
Isabella	368,746.01	1,874.06	.51	--	--
Jackson	453,452.12	13,816.62	3.04	--	--
Kalamazoo	359,234.70	5,577.47	1.55	--	--
Kalkaska	359,699.30	138,765.67	38.57	--	--
		13,782.94[a]	3.84[a]		
Kent	595,815.30	7,736.27	1.42	--	--
Keweenaw	348,468.34	3,774.93	1.08	--	--
Lake	365,393.85	61,280.65	16.77	108,725.00	29.70
Lapeer	423,535.96	10,390.13	2.45	--	--
Leelanau	220,233.58	11,825.19	5.36	--	--
Lenawee	466,677.51	1,420.04	.30	--	--
Livingston	370,891.03	16,003.34	4.31	--	--
Luce	582,654.15	294,492.71	50.50	--	--
Mackinac	650,255.42	203,660.92	31.30	147,556.00	22.60
Macomb	300,030.20	1,397.55	.47	--	--

TABLE XI-19. ACRES OF LAND IN MICHIGAN OWNED BY THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND THE U.S. FOREST SERVICE, BY COUNTY: 30 JUNE 1973 (cont.)

(In acres)

County	Gross area in county	Owned by DNR		Owned by U.S. Forest Service	
		Acreage	Percentage of gross area	Acreage	Percentage of gross area
Manistee	350,101.39	24,009.80	.69	63,945.00	18.26
Marquette	1,182,581.15	264,609.47	22.30	18,081.00	1.52
Mason	315,526.87	5,615.68	1.78	57,548.00	18.23
Mecosta	362,778.58	12,912.89	3.55	2,574.00	.71
Menominee	670,297.43	91,868.67	13.70	--	--
Midland	336,476.28	38,925.03	11.56	--	--
Missaukee	363,289.57	100,021.81	27.50	--	--
Monroe	355,292.52	6,031.76	1.70	--	--
Montcalm	354,460.77	19,261.58	5.43	1,599.00	.45
Montmorency	355,528.77	134,490.41	37.80	--	--
Muskegon	322,434.68	9,266.93	2.87	12,415.00	3.85
Newaygo	542,741.03	1,678.75	.31	106,421.00	19.60
Oakland	575,400.15	26,171.04	4.54	--	--
Oceana	345,416.25	4,764.17	1.38	47,788.00	13.83
Ogemaw	366,811.14	76,405.44	20.82	19,943.00	5.43
Ontonagon	844,753.71	65,477.64	7.75	252,603.00	29.90
Osceola	367,337.05	17,064.49	4.64	--	--
Oscoda	364,769.48	54,940.25	15.06	140,833.00	38.60
Otsego	334,272.96	91,101.69	27.25	--	--
		1,303.93[a]	.39[a]		
Ottawa	357,839.46	1,261.49	.35	--	--
Presque Isle	428,874.97	81,770.30	19.06	--	--
Roscommon	338,315.33	203,028.73	60.00	40.00	.01
Saginaw	520,291.45	13,416.23	2.57	--	--
Sanilac	616,213.60	8,520.65	1.38	--	--
Schoolcraft	758,095.79	286,268.63	37.70	122,750.00	16.10

TABLE XI-19. ACRES OF LAND IN MICHIGAN OWNED BY THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND THE U.S. FOREST SERVICE, BY COUNTY: 30 JUNE 1973 (cont.)

(In acres)

County	Gross area in county	Owned by DNR		Owned by U.S. Forest Service	
		Acreage	Percentage of gross area	Acreage	Percentage of gross area
Shiawassee	345,200.32	925.40	.27	--	--
St. Clair	443,391.12	8,600.47	1.94	--	--
St. Joseph	319,794.45	2,112.94	.66	--	--
Tuscola	519,883.41	27,905.75	5.36	--	--
Van Buren	391,442.62	1,197.37	.31	--	--
Washtenaw	454,047.24	12,972.43	2.85	--	--
Wayne	367,038.57	1,219.87	.33	--	--
Wexford	366,675.69	38,480.43	10.49	94,370.00	25.73
TOTAL	36,437,434.66	4,369,512.59 [b]	12.00 [b]	2,692,363.00	7.39

SOURCE: Michigan Department of Natural Resources, special release.

a. Owned by the State Military Board.

b. Includes land in Crawford, Kalkaska, and Otsego counties owned by State Military Board.

TABLE XI-20. REAL PROPERTY LEASED TO THE FEDERAL GOVERNMENT AND FEDERALLY OWNED LAND IN MICHIGAN, BY PREDOMINANT USAGE: 30 SEPTEMBER 1977

Item	Number of leases or installations	Land in acres			Number of buildings
		Urban	Rural	Total	
Leased	1,666	2,494.7	9,497.7	11,992.4	1,468[a]
Owned[b]	657	1,670.2	3,434,084.0	3,435,754.2	6,409
Forest and wildlife				2,818,460.3	
Parks and historic sites				592,444.4	
Office building locations				307.7	
Military, excluding airfields				9,923.6	
Airfields				9,059.0	
Harbor and port facilities				72.9	
Flood control and navigation				3,260.3	
Vacant				1.2	
Institutional				1,185.8	
Housing				1.4	
Industrial				268.0	
Research and development				100.3	
Other land				669.3	

SOURCE: General Services Administration, Inventory Report on Real Property Leased to the United States Throughout the World, 30 September 1977 (Washington, D.C.: 1978), Table 5, and Inventory Report on Real Property Owned by the United States Throughout the World, 30 September 1977 (Washington, D.C.: 1978), Tables 6 and 12.

a. Number of locations leased.

b. Detail by predominant usage published for total acreage owned only.

TABLE XI-21. NUMBER OF REPORTED FOREST FIRES IN MICHIGAN AND ACREAGE BURNED AS A RESULT: 1968-1977

Year	Lightning	Campfire	Tobacco smoking	Debris burning	Incendiary	Equipment use	All other	Total
				Number of fires				
1968	10	54	207	462	98	125	229	1,185
1969	15	49	206	344	93	164	145	1,016
1970	39	64	203	461	152	239	237	1,395
1971	25	79	212	347	91	293	163	1,210
1972	17	66	166	324	77	223	187	1,060
1973	7	47	142	295	83	139	119	832
1974	20	45	176	343	109	196	140	1,029
1975	40	77	204	225	79	42	186	853
1976	99	159	258	296	131	103	295	1,341
1977	72	122	223	329	169	155	363	1,433
				Acres burned				
1968	10	386	1,820	3,726	2,958	6,202	1,231	16,333
1969	24	166	2,333	1,854	770	754	644	6,545
1970	56	255	741	2,844	581	947	1,069	6,492
1971	60	449	1,344	1,630	831	993	287	5,597
1972	24	630	1,151	1,628	553	804	864	5,654
1973	7	160	615	1,069	322	241	250	2,664
1974	80	195	1,566	2,176	999	608	464	6,087
1975	143	342	1,041	1,467	4,788	275	8,715	16,775
1976	19,264	645	1,626	1,122	923	505	1,385	25,470
1977	805	710	1,396	3,911	1,563	2,074	1,650	12,109

SOURCE: Michigan Department of Natural Resources, special release.

TABLE XI-22. REGISTRATION OF WATERCRAFT, SNOWMOBILES, AND OFF ROAD VEHICLES IN MICHIGAN, BY COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1978

County	Type of vehicle		
	Watercraft	Snowmobile	Off road
Alcona	1,572	1,567	199
Alger	1,325	1,862	154
Allegan	6,521	4,641	614
Alpena	4,284	4,075	182
Antrim	3,377	2,102	128
Arenac	2,191	1,832	106
Baraga	820	877	13
Barry	5,668	3,734	428
Bay	9,296	9,364	1,792
Benzie	2,273	1,411	74
Berrien	13,011	4,444	750
Branch	6,273	2,660	249
Calhoun	10,503	4,534	922
Cass	8,134	2,862	426
Charlevoix	2,822	2,502	231
Cheboygan	3,579	3,604	126
Chippewa	4,640	5,834	154
Clare	2,526	3,093	233
Clinton	4,111	5,197	671
Crawford	2,134	1,565	346
Delta	3,627	5,604	346
Dickinson	2,384	3,009	164
Eaton	5,697	5,625	1,049
Emmet	3,142	2,507	291
Genesee	29,351	26,226	4,672
Gladwin	2,264	2,268	283
Gogebic	2,339	2,170	19
Grand Traverse	7,297	5,410	440
Gratiot	2,697	3,793	587
Hillsdale	3,402	2,598	175
Houghton	2,658	2,390	52
Huron	2,580	4,243	209
Ingham	15,194	8,758	2,068
Ionia	3,588	4,100	386
Iosco	4,002	2,776	373
Iron	2,193	1,714	122
Isabella	2,637	3,064	316
Jackson	12,129	6,592	1,096
Kalamazoo	16,168	5,701	1,784
Kalkaska	1,253	1,576	165
Kent	31,783	17,610	4,245
Keweenaw	292	196	5

TABLE XI-22. REGISTRATION OF WATERCRAFT, SNOWMOBILES, AND OFF ROAD VEHICLES IN MICHIGAN, BY COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1978 (cont.)

County	Type of vehicle		
	Watercraft	Snowmobile	Off road
Lake	1,283	954	125
Lapeer	3,310	6,425	709
Leelanau	2,942	1,686	51
Lenawee	6,442	5,058	628
Livingston	7,088	5,395	774
Luce	1,192	1,308	86
Mackinac	2,780	2,319	148
Macomb	33,874	18,797	4,914
Manistee	2,668	1,920	218
Marquette	5,267	6,386	637
Mason	3,407	2,463	156
Mecosta	3,158	2,761	148
Menominee	2,010	3,128	86
Midland	6,550	4,893	1,065
Missaukee	1,173	1,479	40
Monroe	7,922	5,450	1,253
Montcalm	4,256	4,769	365
Montmorency	1,490	1,324	81
Muskegon	12,349	9,244	1,727
Newaygo	3,598	3,488	388
Oakland	53,412	33,410	7,191
Oceana	1,674	2,446	237
Ogemaw	1,990	2,523	151
Ontonagon	1,150	1,897	145
Osceola	1,457	2,324	136
Oscoda	1,185	1,038	101
Otsego	1,700	2,215	240
Ottawa	12,310	8,087	1,595
Presque Isle	1,935	2,086	55
Roscommon	4,363	3,639	278
Saginaw	15,260	14,533	2,337
St. Clair	9,242	7,915	570
St. Joseph	6,782	1,961	374
Sanilac	1,408	4,189	135
Schoolcraft	1,606	1,784	237
Shiawassee	4,187	6,151	1,011
Tuscola	3,276	6,662	592
Van Buren	6,138	2,659	346
Washtenaw	12,711	6,869	1,312
Wayne	81,195	24,363	8,449
Wexford	3,802	2,849	210
Non-resident	23,790	5,981	1,833
Michigan	615,069	420,418	67,779

SOURCE: Michigan Department of State, special release.

XII. AGRICULTURE, FORESTRY, AND COMMERCIAL FISHERIES

654

Michigan Agricultural Statistics is an annual publication of the Michigan Department of Agriculture. Many of the data in this chapter are prereleases of statistics that will appear in the 1979 edition.

The Agricultural Experiment Station and the Extension Service at Michigan State University also are sources of information on Michigan agriculture. A list of the research reports issued by the Agricultural Experiment Station is available on request.

Income and employment statistics on agriculture in Michigan counties are prepared annually by the Bureau of Economic Analysis in the U.S. Department of Commerce. These are the most comprehensive accounts of agricultural activity for individual counties. They form the basis for the evaluation of agriculture's importance in Table XII-23.

The U.S. Bureau of Commercial Fisheries issues Current Fishery Statistics as well as the annual Fishery Statistics of the United States.

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TABLE XII-1. NUMBER OF FARMS AND FARM ACREAGE IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1900-1979

Year	Old farm definition			New farm definition		
	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)
			Michigan			
1900	203,261	86	17,562	n.a.	n.a.	n.a.
1910	206,960	92	18,941	n.a.	n.a.	n.a.
1920	196,447	97	19,033	n.a.	n.a.	n.a.
1930	179,000	101	18,000	n.a.	n.a.	n.a.
1940	190,000	97	18,400	n.a.	n.a.	n.a.
1950	161,000	111	17,900	n.a.	n.a.	n.a.
1960	118,000	131	15,400	n.a.	n.a.	n.a.
1970	84,000	151	12,700	n.a.	n.a.	n.a.
1975	76,000	155	11,800	70,000	164	11,500
1976	75,000	156	11,700	69,000	165	11,400
1977	74,000	157	11,600	68,000	165	11,200
1978	72,000	158	11,400	65,000	166	10,800
1979	n.a.	n.a.	n.a.	63,000	168	10,600
			United States (Farms in thousands)			
1900	5,737	147	838,592	n.a.	n.a.	n.a.
1910	6,361	138	878,798	n.a.	n.a.	n.a.
1920	6,448	149	955,884	n.a.	n.a.	n.a.
1930	6,295	157	990,112	n.a.	n.a.	n.a.
1940	6,102	175	1,065,114	n.a.	n.a.	n.a.
1950	5,388	216	1,161,420	n.a.	n.a.	n.a.
1960	3,963	297	1,175,646	n.a.	n.a.	n.a.
1970	2,949	374	1,102,371	n.a.	n.a.	n.a.
1975	2,767	391	1,081,448	2,491	427	1,062,723
1976	2,738	394	1,078,263	2,454	432	1,059,148
1977	2,706	397	1,075,003	2,409	438	1,054,798
1978	2,680	400	1,072,333	2,370	444	1,052,098
1979	n.a.	n.a.	n.a.	2,330	450	1,048,768

SOURCE: Michigan Agricultural Reporting Service, special release.

NOTE: The old farm definition included places of 10 or more acres that had annual sales of $50 or more, or that were smaller but had sales of $250 or more. The new farm definition includes places of any size that had annual sales of agricultural products of $1,000 or more.

n.a.: not available.

TABLE XII-2. GROSS FARM INCOME, PRODUCTION EXPENSES, AND REALIZED NET INCOME IN MICHIGAN AND U.S. AGRICULTURE: 1950-1977

Year	Total ($000,000)			Per farm ($)		
	Gross income	Production expenses	Net farm income	Gross income	Production expenses	Net farm income
			Michigan			
1950-1954[a]	833	508	325	5,507	3,342	2,165
1955-1959[a]	835	571	244	6,365	4,478	1,887
1960-1964[a]	919	663	256	8,386	6,053	2,333
1965-1969[a]	1,033	754	279	11,265	8,235	3,030
1970-1974[a]	1,411	1,028	383	17,396	12,661	4,735
1975	1,869	1,437	432	24,589	18,908	5,681
1976	1,956	1,554	401	26,078	20,727	5,351
1977	2,120	1,662	458	28,643	22,454	6,184
			United States			
1950-1954[a]	34,996	21,574	13,422	6,739	4,159	2,683
1955-1959[a]	35,571	24,309	11,262	8,168	5,588	2,637
1960-1964[a]	41,258	29,931	11,327	11,193	8,126	3,126
1965-1969[a]	50,791	37,996	12,795	16,073	12,044	4,162
1970-1974[a]	76,949	56,376	20,574	26,971	19,768	7,506
1975	96,938	75,863	21,075	35,034	27,417	8,845
1976	104,087	82,972	21,115	38,016	30,304	6,848
1977	108,100	87,969	20,131	39,948	32,509	7,592

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 7; Farm Income Statistics (Washington, D.C.: Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, 1978), Tables 1H and 3H; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

TABLE XII-3. PRODUCTION EXPENSES OF FARMS IN MICHIGAN, BY CATEGORY: 1950-1977

	Current operating expenses												
Year	Feed	Live-stock	Fertilizer and lime	Seeds	Repairs & maintenance	Hired labor	Miscellaneous	Total	Depreciation	Taxes	Interest	Rent	Total
1950-1954[a]	59.8	13.8	25.9	14.4	89.2	58.3	48.6	310.0	92.0	15.6	7.6	15.0	440.2
1955-1959[a]	67.3	19.0	38.1	16.0	110.6	49.8	63.2	364.0	132.6	24.4	10.7	8.4	540.1
1960-1964[a]	75.4	20.6	36.7	14.1	118.3	59.9	85.2	410.1	151.3	36.7	16.9	6.5	621.6
1965-1969[a]	80.9	16.2	43.2	17.9	111.1	53.5	96.4	419.2	159.4	48.1	28.8	9.0	664.5
1970	88.5	26.6	52.8	20.2	140.6	66.4	114.4	509.5	203.0	79.2	42.5	4.5	838.7
1971	94.2	22.9	77.6	28.7	116.6	98.2	157.7	595.9	214.3	88.5	45.4	.3	944.4
1972	93.9	24.0	71.9	31.2	114.1	105.0	167.0	607.1	211.3	69.4	47.4	9.1	944.3
1973	141.2	33.1	74.7	43.8	127.9	110.3	185.4	716.4	244.6	78.6	55.4	22.5	1117.5
1974	165.3	32.3	147.1	59.7	156.9	126.0	201.3	888.6	289.7	91.1	67.1	19.4	1355.9
1975	154.9	30.6	149.2	58.8	179.5	116.0	229.0	917.9	323.6	105.2	78.1	12.3	1437.0
1976	182.3	29.6	154.0	70.2	197.4	122.6	253.6	1009.8	341.4	121.3	87.7	-5.6	1554.6
1977	172.3	27.1	169.0	79.0	218.8	109.0	269.7	1044.9	395.3	128.1	100.6	-6.8	1662.0

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

TABLE XII-4. ACREAGE AND PRODUCTION OF MAJOR MICHIGAN CROPS: 1950-1978

Crop	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1975	1976	1977	1978
				Harvested acreage (Thousands of acres)					
All corn	1,729	1,913	1,895	1,734	2,063	2,500	2,660	2,750	2,660
Winter wheat	1,269	1,037	1,019	839	604	900	870	825	450
Oats	1,331	1,056	745	519	376	370	385	340	360
Tame hay	2,383	2,026	1,791	1,549	1,320	1,325	1,290	1,300	1,370
Soybeans	121	221	300	481	569	610	565	720	800
Dry beans	382	504	567	600	577	520	545	480	560
Sugar beets	62	68	74	80	85	91	91	86	91
Potatoes	67	50	45	44	42	36	42	40	42
Vegetables	138	124	113	102	108	111	108	109	110
Orchards	167[b]	160	152	152	157	153	147	141	140
All crops	8,011	7,449	6,870	6,235	6,062	6,683	6,793	6,779	6,663
				Production (Thousands of units)					
All corn (bu)[c]	62,227	82,662	92,302	93,193	124,393	167,200	153,870	197,200	182,250
Winter wheat (bu)	34,142	33,000	36,365	30,849	23,084	34,200	33,060	33,000	18,000
Oats (bu)	48,049	50,820	37,215	27,392	19,988	20,720	19,635	18,700	20,520
Tame hay (tons)	3,631	3,329	3,356	3,330	3,065	3,335	3,060	2,855	3,683
Soybeans (bu)	2,334	4,990	6,783	10,904	13,397	15,860	11,583	21,600	19,200
Dry beans (cwt)	3,571	5,014	7,437	6,775	6,231	4,732	5,450	5,664	6,440
Sugar beets (tons)	699	980	1,153	1,355	1,571	1,755	1,540	1,796	1,756
Potatoes (bu)	12,468	11,734	13,708	14,678	16,089	13,460	16,037	17,072	16,872
Orchards (index, 1966-1968 = 100)	n.a.	n.a.	137	118	120	139	72	105	128

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 1 and 2; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

b. Estimate.

c. Grain only, excludes silage.

TABLE XII-5. MAJOR LIVESTOCK INVENTORY AND PRODUCTION OF MAJOR LIVESTOCK PRODUCTS IN MICHIGAN: 1950-1979

Livestock or product	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1975	1976	1977	1978	1979
				Inventory, 1 January (thousands)						
All cattle & calves										
Milk cows	930	831	698	568	435	415	407	405	404	402
Beef cows	63	97	119	141	192	205	208	239	196	138
Cattle on feed	100	104	148	185	226	200	210	215	200	180
Total	1,880	1,797	1,759	1,587	1,552	1,580	1,550	1,570	1,470	1,250
Hogs & pigs	812	739	809	652	756	715	700	720	640	810
Sheep & lambs	432	410	365	290	278	147	138	149	138	121
Chickens (all)	10,986	9,930	7,961	8,466	8,126	7,805	8,142	6,729	7,959	8,140
Turkeys (hens)	82	67	82	86	76	45	62	55	52	40
				Production (millions of pounds)						
Milk	5,409	5,272	5,485	4,897	4,670	4,411	4,626	4,761	n.a.	n.a.
Cattle & calves	443	431	460	473	476	476	490	514	n.a.	n.a.
Hogs	289	261	260	220	264	208	247	233	n.a.	n.a.
Sheep & lambs	21	22	21	15	11	8	7	8	n.a.	n.a.
Eggs (millions)	1,609	1,626	1,410	1,540	1,486	1,467	1,520	1,530	1,497	n.a.
Chickens (000)	14,493	8,782	4,584	4,413	4,883	5,100	4,600	4,400	n.a.	n.a.
Turkeys (000)	1,049	1,162	1,241	1,158	1,040	700	1,170	1,210	1,210	n.a.
Commercial broilers (000)	3,485	4,350	2,732	1,200	697	510	756	871	n.a.	n.a.

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 3 and 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

n.a.: not available.

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1970-1977 (cont.)

(In thousands of dollars)

Item	1970	1971	1972	1973	1974	1975	1976	1977
Fruit								
Apples	29,274	25,582	28,418	36,854	44,802	36,055	39,005	51,581
Cherries	15,490	22,059	22,354	27,041	46,875	25,455	30,840	57,106
Grapes	8,747	8,245	8,752	4,574	8,688	7,170	2,179	6,450
Peaches	5,343	4,704	1,059	5,692	8,108	7,290	5,584	8,502
Strawberries	5,119	5,061	5,218	4,723	5,503	5,297	5,798	4,152
Pears	1,513	1,438	1,922	1,408	1,616	2,023	1,512	2,545
Plums and prunes	1,446	1,423	1,924	2,189	2,076	2,353	2,105	1,953
Other	8,919	9,897	6,328	15,301	12,976	11,548	15,805	8,890
Other products								
Forest and maple	6,441	5,348	7,321	10,204	11,303	8,927	12,002	12,657
Greenhouse, nursery	33,191	40,364	43,701	50,585	55,610	61,276	66,606	66,527
All commodities	906,711	974,334	1,039,074	1,500,124	1,651,839	1,629,807	1,700,575	1,823,656
Government payments	65,698	52,532	61,203	38,888	10,438	13,276	7,300	21,195
TOTAL	972,409	1,026,866	1,100,277	1,539,012	1,662,277	1,660,980	1,731,159	1,844,851

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1976 through 1978 (Lansing: annually), p. 10 (1978), and special release (1977, 1976, 1975, selected updated data).

a. Turkey hatching eggs, other poultry, beeswax, honey, horses and mules, other livestock.

TABLE XII-7. MICHIGAN INDEXES OF PRICES RECEIVED BY FARMERS, U.S. PRICES PAID BY FARMERS AND RATIO: 1968-1978

Item	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Livestock											
All livestock	104	113	116	114	125	160	163	170	184	179	207
Dairy products	104	106	110	113	117	136	156	162	187	183	198
Meat products	101	120	124	118	148	200	176	189	182	178	234
Poultry and eggs	112	124	118	103	93	161	159	151	173	161	162
Crops											
All crops	98	94	98	107	112	174	233	190	189	192	204
Cash field	98	95	104	126	128	231	331	230	231	204	219
Fruits	106	95	80	86	92	124	153	133	143	181	213
Vegetables	96	92	106	98	117	139	135	161	152	189	172
Feed crops	88	94	105	109	104	157	237	223	208	187	191
All products	102	104	108	111	119	166	195	179	187	186	206
U.S. prices paid, commodities, services, interest, taxes, and wage rates	103	108	112	118	125	144	164	180	192	n.a.	n.a.
Ratio[a]	99	96	96	93	95	115	119	99	97	n.a.	n.a.

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), pp. 16-17, and special release (U.S. data and 1978 Michigan data).

NOTE: Indexes are calculated using 1967 as the base year.

a. Ratio of Michigan index of prices received for all farm products to U.S. index of prices paid for commodities, services, interest, taxes, and wage rates.

n.a. not available.

TABLE XII-8. PRICES RECEIVED BY MICHIGAN FARMERS FOR CROPS, LIVESTOCK, POULTRY, AND PRODUCTS: 1969-1978

Item	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Hogs ($ per cwt)	22.40	22.90	17.90	25.50	39.50	35.80	48.00	44.70	40.50	47.60
Beef cattle ($ per cwt)	24.20	25.80	26.40	30.50	40.20	36.30	33.50	33.00	32.80	44.30
Veal calves ($ per cwt)	32.00	37.60	40.30	49.70	62.40	45.00	30.40	35.40	38.80	61.60
Sheep ($ per cwt)	8.40	8.90	8.20	9.70	13.60	11.40	11.20	13.70	13.80	20.30
Lambs ($ per cwt)	27.20	27.20	26.60	29.50	36.60	38.60	43.80	47.70	51.60	62.10
Milk ($ per cwt wholesale)	5.60	5.81	5.96	6.17	7.20	8.22	8.55	9.85	9.65	10.50
Chickens (¢ per lb)	10.5	8.1	8.0	8.5	11.8	8.3	14.5	12.0	10.0	11.0
Eggs (¢ per doz)	37.2	36.1	27.8	26.3	49.6	48.4	49.3	53.4	49.6	46.8
Wool ($ per lb)	.37	.37	.25	.29	.63	.47	.29	.51	.67	.65
Corn, grain ($ per bu)	1.14	1.32	1.03	1.49	2.52	2.85	2.35	2.04	1.95	2.05
Wheat ($ per bu)	1.20	1.40	1.34	1.67	4.30	3.80	3.22	2.53	2.00	3.01
Oats ($ per bu)	.59	.70	.71	.84	1.35	1.60	1.39	1.56	1.35	1.32
Soybeans ($ per bu)	2.33	2.84	3.05	4.60	5.73	6.40	4.78	7.22	5.60	6.19
Dry beans ($ per cwt)	6.30	9.70	11.50	9.70	27.30	16.00	25.90	16.10	18.00	16.88
All potatoes ($ per cwt)	2.71	2.72	2.47	3.66	6.13	4.15	5.56	4.17	4.44	4.64
All hay ($ per ton)	22.00	22.50	28.50	29.50	31.00	37.50	44.00	43.00	58.00	54.38

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1974 through 1978 (Lansing: annually), pp. 16-17 (1978), and special release (1976 and 1977 data and selected updated 1974 and 1975 data).

NOTE: Data pertain to marketing year average.

TABLE XII-9. NUMBER OF WORKERS ON MICHIGAN FARMS: 1969-1978

(Annual averages in thousands of persons)

Workers	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Family	114	116	106	101	98	95	83	83	77	70
Hired	22	23	23	24	23	24	27	29	25	26
Total	136	139	129	125	121	119	110	112	102	96

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1973 through 1978 (Lansing: annually), p. 18 (1978), and special release (1978 data).

TABLE XII-10. FIRST FIVE RANKING COUNTIES IN MICHIGAN FOR SELECTED CROP PRODUCTION: 1978

Item	1	2	3	4	5
Corn, grain	Huron	Tuscola	Lenawee	Branch	St. Joseph
Winter wheat	Lenawee	Huron	Eaton	Calhoun	Clinton
Oats	Sanilac	Huron	Ionia	Tuscola	Lenawee
Soybeans	Saginaw	Lenawee	Monroe	Shiawassee	Gratiot
Dry beans	Huron	Tuscola	Gratiot	Saginaw	Bay
Sugar beets	Tuscola	Huron	Bay	Saginaw	Sanilac

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-11. MICHIGAN YIELDS PER ACRE, NINE LEADING CROPS: 1970-1978

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978
Corn, grain (bu)	81.0	69.0	83.0	79.0	60.0	80.0	69.0	85.0	81.0
Winter wheat (bu)	39.0	36.0	40.0	35.0	40.0	38.0	38.0	40.0	40.0
Oats (bu)	58.0	47.0	55.0	50.0	55.0	56.0	51.0	55.0	57.0
Barley (bu)	51.0	43.0	51.0	39.0	49.0	47.0	46.0	52.0	47.0
Potatoes (cwt)	246	207	239	216	234	222	231	257	239
Soybeans (bu)	26.0	20.5	26.0	24.0	21.0	26.0	20.5	30.0	24.0
Dry beans (cwt)	10.7	10.3	12.2	9.8	12.5	9.1	10.0	11.8	11.5
Sugar beets (tons)	21.3	17.1	18.9	17.6	17.0	19.2	16.8	21.0	19.3
Hay, all (tons)	2.43	2.00	2.34	2.49	2.33	2.52	2.37	2.20	2.69

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1972 through 1976 (Lansing: annually), p. 22 (1976), and special release (1977 and 1978 data).

TABLE XII-12. QUANTITY AND VALUE OF LIVESTOCK AND POULTRY ON FARMS, MICHIGAN AND THE UNITED STATES: 1 JANUARY 1975-1979

Species and year	Michigan			United States		
	Number (1,000)	Value per head or bird	Total value (1,000)	Number (1,000)	Value per head or bird	Total value (1,000)
All cattle and calves						
1975	1,580	240.00	379,200	132,028	159.00	20,999,808
1976	1,550	270.00	418,500	127,980	190.00	24,351,124
1977	1,570	290.00	455,300	122,810	206.00	25,251,635
1978	1,470	325.00	477,750	116,375	232.00	27,028,660
1979	1,250	500.00	625,000	110,864	403.00	44,661,338
All hogs (including pigs)[a]						
1975	715	48.00	34,320	54,693	44.90	2,457,052
1976	700	81.50	57,050	49,267	80.40	3,959,360
1977	720	51.00	36,720	54,934	47.00	2,582,568
1978	640	66.00	42,240	56,539	63.20	3,575,279
1979	810	84.00	68,040	59,860	83.30	4,986,498
All sheep and lambs						
1975	147	30.50	4,484	14,515	30.50	442,491
1976	138	33.00	4,554	13,311	37.30	496,291
1977	149	36.50	5,439	12,776	42.40	541,458
1978	138	41.50	5,727	12,348	51.50	636,088
1979	121	55.00	6,655	12,224	71.70	876,240
All chickens[a]						
1975	7,805	1.75	13,659	384,101	1.70	653,305
1976	8,142	1.60	13,027	379,754	1.74	659,960
1977	7,912	1.65	13,055	378,238	1.70	643,511
1978	7,959	1.35	10,745	386,429	1.69	652,308
1979	8,140	1.55	12,617	394,505	1.75	691,327
Turkey - breeder hens[a]						
1975	45	10.00	450	2,969	9.84	29,215
1976	62	10.00	620	3,098	10.79	33,427
1977	55	9.00	495	3,069	11.12	34,119
1978	52	10.80	562	3,038	11.37	34,390
1979	40	16.00	640	3,069	12.53	42,403
Total value - all species						
1975	--	--	432,113	--	--	24,581,871
1976	--	--	493,751	--	--	29,484,162
1977	--	--	511,009	--	--	29,053,291
1978	--	--	537,024	--	--	31,553,125
1979	--	--	712,952	--	--	51,257,806

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 45, and special release (1979 data, and selected updated data for previous years).

a. 1 December of previous year.

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1970-1977

(In thousands of dollars)

Item	1970	1971	1972	1973	1974	1975	1976	1977
Livestock and products	493,605	518,809	581,403	709,317	687,857	732,935	813,566	840,643
Dairy	261,035	278,897	299,512	325,447	353,860	376,312	447,786	425,426
Cattle and calves	118,382	130,443	156,269	194,052	168,729	175,714	168,812	197,987
Hogs	55,147	55,055	69,476	97,474	86,762	101,511	102,205	97,641
Eggs	40,715	34,479	35,997	62,581	53,813	55,556	67,312	61,898
Sheep and lambs	3,826	3,997	3,297	4,613	4,819	3,376	2,874	3,825
All chickens	2,392	2,560	1,697	2,665	1,898	3,784	3,272	2,889
Wool	683	421	534	1,050	701	322	549	744
Other[a]	11,812	12,957	14,621	21,435	17,275	16,360	20,756	23,233
Crops	412,719	455,525	457,671	790,807	963,982	914,76[illegible]	910,293	983,013
Field crops								
Corn	63,359	75,523	70,762	145,055	216,374	219,156	262,828	246,956
Dry edible beans	48,462	66,575	57,843	134,460	99,320	127,744	78,857	99,658
Soybeans	28,252	38,098	30,067	67,856	100,569	63,726	79,251	89,060
Sugarbeets	23,339	18,961	20,311	46,482	64,790	43,524	34,496	39,871
Wheat	24,243	22,150	31,659	71,093	95,236	113,701	81,360	74,072
Potatoes	25,372	21,287	25,240	41,498	48,274	34,142	36,975	43,940
Hay	9,457	11,601	10,961	15,059	18,629	30,154	24,849	24,389
Oats	7,898	6,654	6,083	8,949	15,411	16,644	18,800	14,494
Mint	1,284	827	725	911	1,111	1,281	1,186	1,272
Red clover seed	727	411	185	1,345	1,508	765	1,882	711
Rye	694	633	414	769	727	515	1,476	418
Barley	474	344	424	798	1,352	1,053	1,790	1,620
Vegetables	58,495	61,890	68,800	89,458	94,735	84,329	95,501	110,256
Other	5,180	6,450	7,200	8,503	8,389	8,641	10,606	15,933

TABLE XII-13. QUANTITY OF LIVESTOCK AND POULTRY ON MICHIGAN FARMS, BY CLASS: 1 JANUARY 1975-1979

(In 1,000 head)

Species and class	1975	1976	1977	1978	1979
Cattle and calves					
Classification by sex and weight					
Cows and heifers that have calved	620	615	644	600	540
Beef cows	205	208	239	196	138
Milk cows	415	407	405	404	402
Heifers, 500 pounds and over	288	279	267	269	223
For beef cow replacement	47	31	39	29	19
For milk cow replacement	170	202	157	184	149
Other heifers	71	46	71	56	55
Steers, 500 pounds plus	250	270	251	244	187
Bulls, 500 pounds plus	27	26	28	28	19
Calves, less than 500 pounds	395	360	380	329	281
All cattle and calves	1,580	1,550	1,570	1,470	1,250
Hogs[a]					
All hogs	715	700	720	640	810
Breeding hogs	92	98	101	101	134
ket hogs	623	602	619	539	676
Sheep and lambs					
Ewe lambs	15	14	17	13	14
Wether and ram lambs	4	3	3	3	3
Ewes, 1 year plus	98	89	91	88	75
Rams and wethers, 1 year plus	3	4	4	4	3
Total stock sheep	120	110	115	108	95
Sheep and lambs on feed	27	28	34	30	26
All sheep and lambs	147	138	149	138	121
Chickens[a]					
Pullets of laying age	3,410	3,650	3,380	3,333	3,500
Hens	2,842	2,790	3,060	2,967	2,850
Hens and pullets of laying age	6,252	6,440	6,440	6,300	6,350
Pullets, 3 months plus	790	847	641	915	840
Pullets, less than 3 months	732	822	799	703	900
Other chickens	31	33	32	41	50
All chickens	7,805	8,142	7,912	7,959	8,140
Turkeys					
Breeding hens	45	62	55	52	40

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 46, and special release (1979 data).

a. 1 December inventory of previous year.

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1974-1978

Crop	Year	Acreage		Production		Price received per unit (dollars)	Value of production ($1,000)
		Planted (000)	Harvested (000)	Per acre	Total (000)		
Corn, all	1974	2,310	n.a.	n.a.	n.a.	n.a.	n.a.
	1975	2,520	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	2,670	n.a.	n.a.	n.a.	n.a.	n.a.
	1977	2,800	n.a.	n.a.	n.a.	n.a.	n.a.
	1978	2,670	n.a.	n.a.	n.a.	n.a.	n.a.
Corn, grain (bu)	1974	n.a.	1,975	60.0	118,500	2.91	344,835
	1975	n.a.	2,090	80.0	167,200	2.35	392,920
	1976	n.a.	2,230	69.0	153,870	2.04	313,895
	1977	n.a.	2,320	85.0	197,200	1.92	378,624
	1978	n.a.	2,250	81.0	182,250	2.05	373,613
Corn, silage (ton)	1974	n.a.	495	10.5	5,198	16.50	85,767
	1975	n.a.	410	12.5	5,125	16.10	82,513
	1976	n.a.	420	11.5	4,830	16.00	77,280
	1977	n.a.	420	12.5	5,250	16.70	87,675
	1978	n.a.	395	12.5	4,938	16.30	80,489
Wheat, winter (bu)	1974	860	850	40.0	34,000	3.64	123,760
	1975	910	900	38.0	34,200	3.22	110,124
	1976	880	870	38.0	33,060	2.53	83,642
	1977	870	825	40.0	33,000	2.02	66,660
	1978	470	450	40.0	18,000	3.30	59,400
Oats (bu)	1974	370	350	55.0	19,250	1.65	31,763
	1975	400	370	56.0	20,720	1.39	30,631
	1976	420	385	51.0	19,635	1.56	23,749
	1977	400	340	55.0	18,700	1.27	26,676
	1978	390	360	57.0	20,520	1.30	—
Barley (bu)	1974	21	16	49.0	784	2.50	1,960
	1975	18	17	47.0	799	2.73	2,181
	1976	20	19	46.0	874	3.25	2,841
	1977	21	19	52.0	988	2.53	2,500
	1978	20	19	47.0	893	2.35	2,099
Rye (bu)	1974	150	18	25.0	450	2.46	1,107
	1975	128	19	24.0	456	1.88	857
	1976	125	18	26.0	468	2.15	1,006
	1977	115	19	24.0	456	1.65	752
	1978	130	25	24.0	600	2.05	1,230
Soybeans (bu)	1974	610	600	21.0	12,600	6.28	79,128
	1975	615	610	26.0	15,860	4.78	75,811
	1976	570	565	20.5	11,583	7.22	83,629
	1977	730	720	30.0	21,600	5.54	119,664
	1978	810	800	24.0	19,200	6.45	123,840
Dry beans[a] (cwt)	1974	560	550	12.5	6,875	14.80	101,750
	1975	540	520	9.1	4,732	25.90	122,559
	1976	560	545	10.0	5,450	16.10	87,745
	1977	550	480	11.8	5,664	18.30	103,651
	1978	570	560	11.5	6,440	14.20	91,448
Potatoes, all (cwt)	1974	43.7	42.4	234	9,926	4.15	41,175
	1975	37.7	36.4	222	8,076	5.56	44,874
	1976	42.9	41.6	231	9,622	4.17	40,128
	1977	42.0	39.8	257	10,243	4.14	42,376
	1978	43.5	42.3	239	10,123	4.57	46,280

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1974-1978 (cont.)

Crop	Year	Acreage		Production		Price received per unit (dollars)	Value of production ($1,000)
		Planted (000)	Harvested (000)	Per acre	Total (000)		
Potatoes, summer (cwt)	1974	8.7	8.4	190	1,596	4.40	7,022
	1975	7.7	7.4	190	1,406	5.35	7,522
	1976	7.9	7.6	170	1,292	3.98	5,142
	1977	8.0	7.8	185	1,443	n.a.	n.a.
	1978	8.5	8.3	175	1,453	n.a.	n.a.
Potatoes, fall (cwt)	1974	35.0	34.0	245	8,330	4.10	34,153
	1975	30.0	29.0	230	6,670	5.60	37,352
	1976	35.0	34.0	245	8,330	4.20	34,986
	1977	34.0	32.0	275	8,800	n.a.	n.a.
	1978	35.0	34.0	255	8,670	n.a.	n.a.
Sugarbeets (ton)	1974	82.4	80.4	17.0	1,364	47.50	64,790
	1975	93.6	91.4	19.2	1,755	24.80	43,524
	1976	93.6	91.4	16.8	1,540	22.40	34,496
	1977	92.3	85.5	21.0	1,796	20.10	36,100
	1978	93.0	91.5	19.3	1,770	n.a.	n.a.
Hay, all (ton)	1974	n.a.	1,290	2.33	3,001	39.00	117,039
	1975	n.a.	1,325	2.52	3,335	44.00	146,740
	1976	n.a.	1,290	2.37	3,060	43.00	131,580
	1977	n.a.	1,300	2.20	2,855	58.50	167,018
	1978	n.a.	1,370	2.69	3,683	45.50	167,577
Hay, alfalfa (ton)	1974	n.a.	1,000	2.45	2,450	n.a.	n.a.
	1975	n.a.	1,000	2.75	2,750	n.a.	n.a.
	1976	n.a.	980	2.60	2,548	n.a.	n.a.
	1977	n.a.	1,000	2.45	2,450	n.a.	n.a.
	1978	n.a.	1,080	2.90	3,132	n.a.	n.a.
Red clover seed[b] (lb)	1974	n.a.	33	100	3,330	51.00	1,698
	1975	n.a.	21	95	1,995	39.00	778
	1976	n.a.	46	110	5,060	52.00	2,631
	1977	n.a.	25	85	2,125	57.00	1,211
	1978	n.a.	30	85	2,550	46.00	1,173
Popcorn[c] (lb)	1974	3.8	3.6	2,050	7,380	7.10	524
	1975	3.7	3.6	2,020	7,270	10.20	742
	1976	5.5	4.6	2,900	13,340	9.35	1,247
	1977	2.0	1.9	3,750	7,125	8.55	609
	1978	2.2	2.1	3,450	7,245	8.30	601

SOURCES: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1976 (Lansing: 1976), p. 22, and special release (1976, 1977, and 1978 data, and selected updated data for previous years).

a. Production per acre in pounds.

b. Clean seed basis, and price per cwt.

c. Shelled corn basis, price per cwt.

n.a.: not available.

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1973-1978 (cont.)

Fruit	Year	Trees of bearing age: Number (1,000)	Trees of bearing age: Acres (1,000)	Production: Utilized (million lbs.)	Production: Total (million lbs.)	Price received (dollars per cwt.)	Value of production ($1,000)
Prunes and plums							
	1973	680	7.2	18,000	18,000	123.00	2,214
	1974	695	7.3	16,000	16,000	175.00	2,800
	1975	700	7.4	20,000	21,000	119.00	2,380
	1976	700	7.4	16,000	16,000	133.00	2,128
	1977	700	7.4	14,000	14,000	141.00	1,974
	1978	700	7.4	24,000	24,000	138.00	3,312
Grapes[c]							
	1973	7,900	15.8	23,500	23,500	197.00	4,630
	1974	7,900	15.8	47,500	47,500	184.00	8,740
	1975	7,900	15.8	55,000	56,000	131.00	7,205
	1976	7,900	15.8	14,500	14,500	153.00	2,219
	1977	7,900	15.8	33,000	33,000	216.00	7,128
	1978	7,900	15.8	67,500	67,500	206.00	13,905
Pears							
	1973	940	9.9	11,500	11,500	154.00	1,771
	1974	830	8.7	13,000	14,000	160.00	2,080
	1975	750	7.9	15,000	15,000	140.00	2,100
	1976	730	7.9	7,000	7,000	224.00	1,568
	1977	710	7.5	12,000	12,000	230.00	2,760
	1978	710	7.5	15,000	15,000	211.00	3,165

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 34, and special release (1978 data, and selected updated data for previous years).

a. Apples and peaches in millions of pounds; other fruits in tons.

b. Bushes of bearing age.

c. Number of vines of bearing age.

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1975-1978

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Asparagus[b]							
	1975	17,800	17,800	11	196	$ 24.30	4,772
	1976	18,700	18,000	10	180	33.00	774
	1977	17,700	17,300	11	190	43.90	663
	1978	17,700	17,300	13	225	56.30	900
Beans, snap							
	1975	2,400	2,100	32	67	18.40	1,233
	1976	2,900	2,800	33	92	20.00	1,840
	1977	3,000	2,700	34	92	20.20	1,858
	1978	3,000	2,600	30	78	23.10	1,802
Cabbage, summer[b]							
	1975	3,300	2,900	160	464	4.09	1,900
	1976	2,500	2,300	150	345	4.41	1,523
	1977	2,400	2,300	170	391	5.32	2,080
	1978	2,300	2,200	175	385	8.85	3,408
Cabbage, fall[b]							
	1975	1,700	1,600	175	280	3.70	1,037
	1976	1,900	1,700	170	289	3.99	1,152
	1977	1,900	1,600	195	312	4.72	1,474
	1978	1,800	1,700	190	323	5.08	1,640
Cantaloupe							
	1975	2,300	2,100	80	168	11.00	1,848
	1976	2,100	2,000	75	150	13.70	2,055
	1977	2,100	2,000	80	160	11.10	1,776
	1978	2,200	2,100	80	168	12.20	2,050
Carrots, summer[b]							
	1975	3,100	2,700	240	648	8.90	5,766
	1976	3,300	3,300	260	858	7.35	6,308
	1977	3,200	3,000	230	690	9.57	6,601
	1978	3,500	3,300	240	792	11.30	8,921
Carrots, fall[b]							
	1975	2,700	1,900	255	485	7.44	3,607
	1976	2,700	2,700	290	783	8.09	6,332
	1977	3,100	2,600	235	611	10.10	6,192
	1978	3,000	2,800	240	672	8.44	5,671

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1975-1978 (cont.)

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Cauliflower							
	1975	1,100	750	65	49	$ 14.50	709
	1976	600	550	55	30	21.60	649
	1977	900	850	60	51	16.90	860
	1978	800	600	50	30	26.70	802
Celery, summer[b]							
	1975	2,200	1,900	430	817	7.97	6,514
	1976	1,900	1,800	445	801	8.54	6,842
	1977	2,000	1,900	445	846	8.39	7,096
	1978	2,200	2,000	405	810	14.40	11,656
Celery, fall[b]							
	1975	200	200	440	88	6.66	586
	1976	600	500	430	215	8.48	1,823
	1977	500	500	455	228	7.71	1,758
	1978	400	300	420	126	12.20	1,541
Corn, sweet							
	1975	12,000	11,200	65	728	5.71	4,156
	1976	12,500	12,300	57	701	7.33	5,138
	1977	12,500	12,300	63	775	7.07	5,479
	1978	12,000	11,700	60	702	9.28	6,515
Cucumbers							
	1975	2,000	2,000	75	150	9.00	1,350
	1976	2,000	2,000	70	140	11.00	1,540
	1977	2,200	2,100	80	168	9.28	1,559
	1978	2,200	2,100	70	147	12.10	1,779
Lettuce							
	1975	1,600	1,300	150	195	9.67	1,886
	1976	1,600	1,400	170	238	13.90	3,308
	1977	1,600	1,400	170	238	9.60	2,285
	1978	1,600	1,400	195	273	13.70	3,740
Onions[b]							
	1975	7,300	6,800	260	1,768	8.59	12,372
	1976	7,300	7,100	305	2,166	9.40	18,424
	1977	7,500	7,100	295	2,095	6.30	10,584
	1978	7,500	7,200	340	2,448	6.65	13,672

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1973-1978

Fruit	Year	Trees of bearing age: Number (1,000)	Trees of bearing age: Acres (1,000)	Production: Utilized (million lbs.)	Production: Total (million lbs.)	Price received (dollars per cwt.)	Value of production ($1,000)
Apples[a]							
	1973	3,050	53.5	470	470	9.30	43,710
	1974	3,100	52.5	670	670	6.20	41,540
	1975	3,100	51.7	680	700	5.10	34,680
	1976	3,100	51.7	480	480	8.80	42,240
	1977	3,100	51.7	570	570	7.90	45,030
	1978	3,100	51.7	800	800	7.90	63,200
Peaches[a]							
	1973	1,430	14.3	50	50	11.50	5,750
	1974	1,350	13.5	70	70	11.70	8,190
	1975	1,260	12.5	55	65	13.40	7,370
	1976	1,200	11.9	40	40	14.10	5,640
	1977	1,200	11.9	55	55	15.60	8,580
	1978	1,200	11.9	60	60	16.00	9,600
Cherries, tart							
	1973	3,200	36.8	116	116	19.50	22,620
	1974	3,100	36.0	206	206	18.35	37,801
	1975	3,000	34.9	182	222	10.00	18,200
	1976	2,900	33.7	90	90	25.40	22,860
	1977	2,800	32.2	162	162	29.50	47,790
	1978	2,700	31.1	128	128	44.40	56,832
Cherries, sweet							
	1973	980	11.5	34	34	14.00	4,760
	1974	980	11.8	56	56	18.00	10,080
	1975	980	12.1	62	62	11.80	7,316
	1976	980	12.1	27	27	29.80	8,046
	1977	980	12.1	46	46	20.50	9,430
	1978	980	12.1	70	70	22.90	16,030
Blueberries[b]							
	1975	--	8.5	32	32	34.00	10,880
	1976	--	8.5	35.9	35.9	43.00	15,450
	1977	--	8.0	11.8	11.8	71.00	8,378
	1978	--	8.0	22.5	22.5	66.30	14,918

TABLE XII-19. MICHIGAN VEGETABLES FOR PROCESSING, ACREAGE, YIELD, PRODUCTION, AND VALUE: 1974-1978

Crop and season	Year	Acres planted	Acres harvested	Production: Per acre tons	Production: Total tons	Price received per ton	Value of production ($1,000)
Snap beans							
	1974	14,800	13,800	2.58	35,600	$ 124.00	4,414
	1975	13,600	13,100	2.29	30,000	129.00	3,870
	1976	14,200	14,000	2.17	30,400	122.00	3,709
	1977	17,500	16,800	2.46	41,300	125.00	5,163
	1978	18,000	16,400	2.10	34,450	148.00	5,099
Cucumbers for pickles	1974	29,400	27,400	4.23	115,900	125.00	14,488
	1975	30,400	27,600	4.68	129,200	124.00	16,021
	1976	17,000	25,500	4.05	103,300	112.00	11,570
	1977	25,200	24,500	4.65	114,000	109.00	12,426
	1978	27,500	26,500	4.75	126,000	120.00	15,120
Tomatoes							
	1974	5,700	5,300	11.40	60,400	69.30	4,186
	1975	4,700	4,400	14.39	63,300	64.00	4,051
	1976	4,100	4,000	18.63	74,500	65.20	4,857
	1977	4,200	4,100	15.49	63,500	65.80	4,178
	1978	4,600	4,500	18.04	81,200	67.30	5,465

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 40, and special release (1978 data).

TABLE XII-20. ONION PRODUCTION AND UTILIZATION: MICHIGAN, 1973-1978

(1,000 cwt)

Year	Sales: Before Jan. 1	Sales: After Jan. 1	Sales: Total	Shrinkage: Before Jan. 1	Shrinkage: After Jan. 1	Total production	Total stocks Jan. 1[a]	Stocks as percentage of total production
1973	1,130	670	1,800	156	90	2,046	760	37.1
1974	1,190	727	1,917	149	73	2,139	800	37.4
1975	915	525	1,440	263	65	1,768	590	33.4
1976	1,230	730	1,960	176	30	2,166	700	32.3
1977	1,060	620	1,680	320	95	2,095	715	34.1
1978	1,145	911	2,056	253	139	2,448	1,050	42.9

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics 1978 (Lansing: 1978), p. 42, and special release (1978 data).

a. Stocks for the following year.

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1975-1978 (cont.)

Crop and season	Year	Acres		Production		Price received	Value of production[a]
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)	(per cwt)	($1,000)
Peppers[b]							
	1975	2,200	2,000	75	150	$ 12.40	1,853
	1976	1,600	1,500	70	105	17.10	1,796
	1977	1,500	1,400	75	105	17.50	1,838
	1978	1,600	1,500	78	117	20.10	2,352
Tomatoes							
	1975	4,600	4,300	90	387	14.80	5,728
	1976	4,400	4,300	95	409	15.50	6,340
	1977	4,300	4,100	95	390	22.90	8,931
	1978	4,200	3,900	95	371	18.70	6,938
Strawberries[b]							
	1975	3,100	3,000	55	165	32.10	5,297
	1976	3,000	2,900	60	174	33.30	5,798
	1977	2,900	2,800	54	151	31.80	4,795
	1978	2,800	2,700	57	154	36.50	5,621

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), pp. 39, and special release (1978 data, and selected updated data for previous years).

a. For onions--value of sales.

b. Includes processing.

TABLE XII-17. MICHIGAN STRAWBERRIES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1975-1978

Year	Fresh market			Processing		
	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)
1975	110	$ 36.10	3,971	55	$ 24.10	1,326
1976	100	36.00	3,600	74	29.70	2,198
1977	95	33.00	3,135	56	29.70	1,660
1978	84	42.00	3,528	70	29.90	2,093

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 38, and special release (1978 data).

TABLE XII-18. MICHIGAN VEGETABLES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1975-1978

Crop	Year	Fresh market			Processing		
		Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (tons)	Price received per ton	Value of production ($1,000)
Asparagus	1975	21	28.90	607	8,750	476.00	4,165
	1976	20	38.70	774	8,000	645.00	5,160
	1977	13	51.00	663	8,850	868.00	7,682
	1978	15	60.00	900	10,500	1,120.00	11,760
Carrots	1975	915	9.41	8,610	10,900	70.00	763
	1976	1,195	9.81	11,721	22,300	41.20	919
	1977	1,041	11.60	12,126	13,000	51.30	667
	1978	1,006	13.50	13,610	22,900	42.90	982
Cauliflower	1975	20	26.00	520	1,450	130.00	189
	1976	27	23.30	629	150	133.00	20
	1977	24	28.40	682	1,350	132.00	178
	1978	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1978 (Lansing: 1978), p. 40, and special release (1978 data and selected updated data for previous years).

n.a.: not available.

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1978

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Alger	25,300	5,890	--	--	--	--	--
Baraga	20,700	2,770	--	--	--	--	--
Chippewa	205,000	9,140	--	--	--	12,600	--
Delta	166,000	23,400	--	--	73,000	3,430	--
Dickinson	69,000	12,300	--	--	48,200	1,150	--
Gogebic	11,800	--	--	--	--	--	--
Houghton	58,000	4,700	--	--	9,600	3,150	--
Iron	25,100	6,730	--	--	--	1,150	--
Keweenaw	--	--	--	--	--	--	--
Luce	19,700	6,840	--	--	--	1,150	--
Mackinac	26,400	1,470	--	--	10,400	1,430	--
Marquette	25,000	1,680	--	--	--	--	--
Menominee	263,000	84,800	--	--	398,600	12,800	--
Ontonagon	50,000	6,510	--	--	--	3,140	--
Schoolcraft	27,000	1,770	--	--	--	--	--
Upper Peninsula (1)	992,000	168,000	15,200	--	560,000	40,000	7,100
Antrim	57,000	--	--	--	277,000	4,500	--
Benzie	1,100	--	--	--	35,600	800	--
Charlevoix	39,000	1,400	--	--	201,000	2,930	--
Emmet	60,000	--	--	--	154,500	2,930	--
Grand Traverse	38,000	--	--	--	315,000	13,700	--
Kalkaska	1,900	--	--	--	70,500	1,120	--
Leelanau	43,000	--	--	--	188,900	4,160	--
Manistee	20,000	--	--	--	63,000	11,600	--
Missaukee	131,000	--	--	--	530,000	11,600	--
Wexford	29,000	--	--	--	104,500	6,660	--
Northwest (2)	420,000	4,350	10,400	--	1,940,000	60,000	8,700

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1978 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Alcona	120,000	970	--	—	84,500	15,300	—
Alpena	189,000	1,620	--	—	170,000	24,600	—
Cheboygan	80,000	1,680	—	—	93,400	1,650	--
Crawford	4,100	--	—	—	--	—	--
Iosco	115,000	3,150	—	--	226,000	23,100	--
Montmorency	164,000	6,640	—	—	48,000	4,500	—
Ogemaw	132,000	1,900	—	—	423,000	18,200	--
Oscoda	26,000	--	--	--	104,000	1,330	--
Otsego	46,300	—	--	--	68,000	3,620	--
Presque Isle	300,000	2,880	--	—	68,500	18,700	—
Roscommon	3,600	--	--	--	--	--	--
Northeast (3)	1,180,000	19,900	50,000	—	1,287,000	111,000	15,000
Lake	25,000	—	—	—	59,100	9,200	--
Mason	114,000	—	--	—	641,000	88,000	—
Muskegon	83,000	—	—	—	870,000	61,700	--
Newaygo	128,000	—	—	—	1,345,500	58,800	--
Oceana	64,000	—	—	—	554,400	43,300	--
West Central (4)	414,000	1,150	3,400	—	3,470,000	261,000	17,200
Clare	92,000	—	—	—	371,000	19,900	—
Gladwin	260,000	—	30,000	—	941,000	98,700	21,400
Gratiot	398,000	1,870	800,000	88,400	6,025,000	557,000	1,466,000
Isabella	544,000	7,410	189,000	—	3,705,000	249,000	106,000
Mecosta	130,000	—	19,000	--	1,232,000	70,500	2,000
Midland	120,000	--	216,000	48,200	1,382,000	150,000	486,000
Montcalm	327,000	3,890	198,000	--	3,111,000	475,000	100,000
Osceola	251,000	—	—	—	333,000	27,900	—
Central (5)	2,122,000	15,200	1,452,000	141,620	17,100,000	1,648,000	2,184,000

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1978 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Arenac	203,000	—	110,000	33,900	890,000	93,000	80,000
Bay	139,000	--	650,000	315,900	2,870,000	319,000	233,000
Huron	1,583,000	47,900	1,213,000	364,900	8,980,000	980,000	217,000
Saginaw	624,000	12,100	676,000	284,400	4,870,000	747,000	2,866,000
Sanilac	2,020,000	41,500	423,000	150,400	5,952,000	735,000	276,000
Tuscola	1,031,000	430,000	903,000	412,400	8,550,000	792,000	232,000
East Central (6)	5,600,000	532,000	3,975,000	1,561,900	32,112,000	3,666,000	3,904,000
Allegan	464,000	6,200	--	--	6,728,000	315,000	17,000
Berrien	90,000	6,500	3,400	—	4,066,000	166,000	431,000
Cass	148,000	8,470	—	--	6,415,000	280,000	363,000
Kalamazoo	266,000	1,630	1,300	--	4,835,000	571,000	222,000
Kent	366,000	—	23,300	--	4,815,000	394,000	10,000
Ottawa	241,000	14,500	--	—	4,080,000	159,000	2,000
Van Buren	49,000	7,690	—	--	4,238,000	215,000	143,000
Southwest (7)	1,624,000	46,200	28,000	--	35,177,000	2,100,000	1,188,000
Barry	366,000	13,570	22,700	—	3,424,000	345,000	31,000
Branch	171,000	3,370	--	--	7,508,000	440,000	584,000
Calhoun	404,000	11,900	1,300	--	7,132,000	820,000	223,000
Clinton	620,000	6,500	106,000	--	4,285,000	807,000	1,008,000
Eaton	325,000	11,400	278,000	--	5,170,000	895,000	211,000
Hillsdale	260,000	5,960	--	—	6,355,000	388,000	786,000
Ingham	256,000	9,720	24,300	—	5,830,000	444,000	225,000
Ionia	1,005,000	12,500	167,000	--	5,175,000	829,000	169,000
Jackson	239,000	1,330	2,000	--	4,964,000	271,000	61,000
St. Joseph	84,000	5,620	4,700	--	7,349,000	399,000	778,000
Shiawassee	778,000	4,530	115,000	--	3,432,000	436,000	1,480,000
South Central (8)	4,508,000	86,400	721,000	4,800	60,624,000	6,074,000	5,556,000

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1978 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Genesee	356,000	1,600	12,400	--	2,705,000	309,000	375,000
Lapeer	410,000	3,030	96,000	--	2,850,000	253,000	37,000
Lenawee	864,000	3,200	4,000	33,750	7,815,000	1,420,000	2,635,000
Livingston	298,000	--	3,300	--	1,955,000	201,000	11,500
Macomb	134,000	1,500	15,000	--	1,599,000	210,000	176,000
Monroe	367,000	--	--	12,530	5,234,000	573,000	2,184,000
Oakland	105,000	--	--	--	662,000	74,000	2,500
St. Clair	502,000	2,150	54,000	13,350	2,506,000	275,000	300,000
Washtenaw	587,000	7,350	--	--	4,313,000	675,000	381,000
Wayne	37,000	--	--	--	341,000	50,000	218,000
Southeast (9)	3,660,000	19,800	185,000	61,680	29,980,000	4,040,000	6,320,000
State	20,520,000	893,000	6,440,000	1,770,000	182,250,000	18,000,000	19,200,000

SOURCE: Michigan Department of Agriculture, special release.

a. Counties with less than 1,000 acres not published for 1977 due to change in data collection methods.

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 DECEMBER 1978 OR 1 JANUARY 1979

District or county	1 December 1978		1 January 1979			
	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alger	250	6,100	2,800	1,000	400	100
Baraga	—	—	1,800	600	300	—
Chippewa	300	13,600	9,900	2,900	2,000	1,100
Delta	600	9,900	10,300	2,800	2,300	—
Dickinson	—	1,800	3,000	1,000	500	—
Gogebic	—	—	800	—	—	—
Houghton	120	14,100	3,200	1,400	200	100
Iron	200	2,600	2,000	300	700	200
Keweenaw	100	—	—	—	—	—
Luce	120	8,100	—	—	—	—
Mackinac	—	1,100	3,600	1,100	700	—
Marquette	470	1,600	2,000	600	400	—
Menominee	700	22,000	20,400	8,200	1,900	150
Ontonagon	100	7,500	3,200	800	800	—
Schoolcraft	—	—	1,800	100	800	150
Upper Peninsula (1)	3,000	89,000	65,400	21,000	11,500	1,800
Antrim	900	42,500	6,000	1,700	900	100
Benzie	2,000	—	1,800	200	600	150
Charlevoix	450	28,500	5,500	1,600	1,100	250
Emmet	150	5,500	5,300	1,300	1,300	150
Grand Traverse	1,100	33,300	4,800	1,100	1,000	—
Kalkaska	350	15,000	1,300	500	100	—
Leelanau	900	17,800	5,000	800	700	100
Manistee	700	13,700	2,100	300	700	400
Missaukee	1,600	61,000	15,700	6,900	1,000	700
Wexford	350	12,100	4,500	1,600	600	250
Northwest (2)	8,500	230,000	52,000	16,000	8,000	2,200

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 DECEMBER 1978 OR 1 JANUARY 1979 (cont.)

District or county	1 December 1978		1 January 1979			
	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alcona	350	26,000	5,700	900	1,900	900
Alpena	2,000	28,100	11,000	2,800	2,600	450
Cheboygan	550	--	6,200	1,200	1,900	300
Crawford	--	--	--	--	--	--
Iosco	2,500	1,000	7,700	1,200	2,200	550
Montmorency	250	2,100	4,500	1,400	800	500
Ogemaw	900	--	11,200	4,100	1,400	1,200
Oscoda	450	3,600	3,400	1,100	500	350
Otsego	250	--	3,900	800	1,100	--
Presque Isle	700	5,500	10,400	2,500	2,500	100
Roscommon	--	--	--	--	--	--
Northeast (3)	8,000	69,000	64,300	16,000	15,000	4,400
Lake	400	3,300	2,800	600	800	180
Mason	1,800	33,800	10,800	3,800	1,100	750
Muskegon	2,500	40,400	11,500	4,200	900	120
Newaygo	4,700	173,000	19,200	7,600	1,700	1,300
Oceana	2,600	26,500	11,000	2,800	2,000	650
West Central (4)	12,000	277,000	55,300	19,000	6,500	3,000
Clare	2,900	1,300	9,700	2,700	1,800	2,600
Gladwin	2,700	3,200	8,300	2,000	1,900	1,100
Gratiot	16,000	154,000	25,600	7,200	2,100	1,100
Isabella	13,500	82,000	36,300	11,300	2,700	600
Mecosta	3,300	29,600	17,800	5,300	2,000	1,000
Midland	2,500	2,900	6,400	900	1,000	400
Montcalm	5,300	148,000	23,700	9,400	1,700	1,200
Osceola	2,300	22,000	20,200	7,200	2,800	1,000
Central (5)	48,500	443,000	148,000	46,000	16,000	9,000

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 DECEMBER 1978 OR 1 JANUARY 1979 (cont.)

District or county	1 December 1978		1 January 1979			
	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Arenac	4,900	7,000	9,100	3,500	800	—
Bay	1,900	11,000	6,000	1,800	700	—
Huron	15,000	824,000	67,300	19,400	4,100	370
Saginaw	11,600	40,500	16,400	5,500	1,400	750
Sanilac	8,800	18,500	70,700	30,000	3,600	1,300
Tuscola	11,800	355,000	22,500	7,800	1,900	1,000
East Central (6)	54,000	1,256,000	192,000	68,000	12,500	3,500
Allegan	57,000	530,000	44,000	15,600	2,900	2,200
Berrien	22,000	157,000	8,500	2,600	1,100	250
Cass	136,000	48,000	14,900	3,500	2,700	3,000
Kalamazoo	27,000	81,000	17,900	4,200	2,200	1,900
Kent	19,000	191,000	38,600	12,700	4,800	1,200
Ottawa	37,000	1,110,000	33,900	13,200	2,700	600
Van Buren	32,000	15,300	15,200	3,200	2,100	350
Southwest (7)	330,000	2,270,000	173,000	55,000	18,500	9,500
Barry	15,000	77,100	24,800	8,500	3,000	39,000
Branch	33,000	25,000	21,000	6,100	2,300	5,200
Calhoun	26,000	93,000	30,800	8,200	3,900	3,200
Clinton	25,000	40,000	39,600	15,000	2,500	4,800
Eaton	15,500	75,000	21,500	6,200	3,300	5,500
Hillsdale	25,000	135,000	29,800	10,700	2,200	2,600
Ingham	17,500	62,900	32,100	11,500	3,300	3,800
Ionia	26,000	238,000	36,300	13,800	2,800	2,200
Jackson	14,000	24,000	32,300	8,400	4,900	7,600
St. Joseph	36,000	135,000	16,400	5,100	1,900	4,600
Shiawassee	12,000	300,000	24,400	9,500	1,900	2,300
South Central (8)	245,000	1,205,000	309,000	103,000	32,000	45,700

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 DECEMBER 1978 OR 1 JANUARY 1979 (cont.)

District or county	1 December 1978		1 January 1979			
	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Genesee	5,900	54,000	17,300	4,300	1,700	1,600
Lapeer	8,700	11,400	33,500	12,000	2,600	1,800
Lenawee	39,000	109,000	30,200	8,600	1,700	6,700
Livingston	5,400	5,000	23,000	7,800	2,400	2,900
Macomb	5,400	14,600	11,700	3,600	1,200	700
Monroe	12,000	106,000	8,600	1,800	600	1,100
Oakland	2,500	17,000	7,300	1,600	1,700	600
St. Clair	4,600	103,000	29,100	8,000	3,100	1,000
Washtenaw	16,000	46,000	28,800	9,900	2,600	25,400
Wayne	1,500	45,000	1,500	200	400	100
Southeast (9)	101,000	511,000	191,000	58,000	18,000	41,900
Michigan Total	810,000	6,350,000	1,250,000	402,000	138,000	121,000

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in agriculture[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Missaukee	26.43	4,372	26.90	4,951
Oceana	17.87	6,824	23.25	10,592
Huron	22.39	27,629	20.20	27,551
Leelanau	10.32	2,308	19.72	5,921
Sanilac	22.20	25,670	19.41	25,385
Tuscola	13.54	20,716	12.09	20,608
Clinton	10.24	9,020	10.73	10,947
Gratiot	9.96	16,152	10.08	17,757
Arenac	9.84	3,151	9.35	3,486
Newaygo	7.97	6,046	8.90	7,287
Cass	8.78	10,799	8.35	11,614
Allegan	8.25	15,089	8.34	17,614
Lapeer	8.13	13,701	7.93	14,970
Van Buren	5.30	8,567	7.62	13,712
Hillsdale	7.34	9,713	7.52	11,491
Ionia	7.46	10,216	7.36	11,584
Alcona	5.47	748	6.79	1,079
Gladwin	7.02	2,012	6.32	2,064
Antrim	4.09	1,521	6.29	2,732
Oscoda	6.82	745	6.18	765
Montcalm	6.61	9,780	6.08	10,287
Benzie	3.62	982	5.91	1,868
Barry	5.58	5,880	5.84	6,422
Ogemaw	5.44	1,950	5.76	2,280
Osceola	5.94	2,842	5.67	3,105
Mecosta	5.62	4,550	5.62	5,016
Lenawee	4.42	15,805	5.38	21,725
Branch	4.82	7,362	5.11	9,229
Isabella	5.38	8,532	5.04	8,865
St. Joseph	5.35	11,576	5.00	12,129
Eaton	4.95	7,130	4.93	8,142
Menominee	4.87	3,558	4.77	3,858
Presque Isle	4.89	1,779	4.74	1,889
Mason	3.47	2,920	4.45	4,177
Lake	3.30	378	3.68	461

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in agriculture[a]			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Livingston	4.03	6,860	3.63	7,209
Monroe	2.35	8,541	3.32	14,174
Montmorency	3.00	439	2.93	508
Shiawassee	2.35	4,340	2.88	5,814
Clare	3.03	1,259	2.84	1,340
Grand Traverse	1.45	3,411	2.63	7,206
Bay	2.76	13,004	2.40	12,907
Manistee	1.11	820	2.38	2,036
Berrien	1.57	12,404	2.33	21,102
Ottawa	2.33	12,966	2.32	15,304
St. Clair	1.94	8,422	1.84	9,079
Alger	1.65	393	1.80	468
Saginaw	1.86	24,871	1.78	27,334
Iron	1.51	569	1.69	700
Delta	1.47	2,148	1.52	2,347
Charlevoix	1.43	909	1.51	1,116
Wexford	1.51	1,285	1.40	1,435
Cheboygan	1.23	679	1.37	852
Calhoun	1.28	10,304	1.24	10,940
Mackinac	1.11	364	1.23	444
Baraga	1.17	276	1.19	308
Dickinson	1.19	1,360	1.17	1,502
Houghton	1.10	1,076	1.17	1,262
Kalkaska	1.11	336	1.13	411
Otsego	.87	479	1.03	659
Emmet	.98	850	1.02	1,001
Chippewa	.75	933	.98	1,186
Iosco	.93	959	.97	1,037
Gogebic	.95	474	.91	493
Ontonagon	.58	283	.82	406
Kalamazoo	.79	9,285	.79	10,412
Alpena	.63	812	.77	1,119
Jackson	.79	5,603	.77	6,140
Midland	.79	3,722	.77	4,239
Kent	.61	14,412	.69	18,390

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in agriculture[a] 1976 As a percentage of total labor and proprietors' earnings	1976 Total ($000)	1977 As a percentage of total labor and proprietors' earnings	1977 Total ($000)
Muskegon	.58	4,128	.66	5,248
Luce	.45	127	.59	182
Schoolcraft	.40	104	.57	166
Washtenaw	.53	9,415	.54	11,156
Ingham	.40	7,851	.40	9,015
Macomb	.27	8,911	.27	10,538
Genesee	.18	5,184	.17	6,055
Roscommon	.08	25	.15	52
Marquette	.08	245	.09	313
Oakland	.07	3,810	.07	4,292
Wayne	.02	3,541	.02	4,196
Crawford	0	0	0	0
Keweenaw	0	0	0	0
Michigan	.98	478,212	1.02	563,656
United States	2.27	23,811,000	2.25	26,163,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Negative earnings can occur as a result of net losses to farm proprietors being greater than net wages and salaries paid to farm employees.

TABLE XII-24. NUMBER OF LICENSED VETERINARIANS IN MICHIGAN, BY COUNTY: 23 AUGUST 1978

County	Veterinarians	County	Veterinarians
Alcona	1	Lapeer	11
Alger	1	Leelanau	0
Allegan	14	Lenawee	18
Alpena	5	Livingston	27
Antrim	3	Luce	2
Arenac	1	Mackinac	2
Baraga	2	Macomb	68
Barry	10	Manistee	3
Bay	15	Marquette	5
Benzie	2	Mason	3
Berrien	26	Mecosta	7
Branch	12	Menominee	4
Calhoun	28	Midland	19
Cass	8	Missaukee	0
Charlevoix	5	Monroe	12
Cheboygan	3	Montcalm	4
Chippewa	3	Montmorency	1
Clare	6	Muskegon	13
Clinton	12	Newaygo	4
Crawford	2	Oakland	179
Delta	9	Oceana	2
Dickinson	5	Ogemaw	4
Eaton	12	Ontonagon	0
Emmet	7	Osceola	3
Genesee	52	Oscoda	0
Gladwin	1	Otsego	4
Gogebic	2	Ottawa	21
Grand Traverse	15	Presque Isle	3
Gratiot	9	Roscommon	4
Hillsdale	9	Saginaw	32
Houghton	2	Sanilac	15
Huron	12	Schoolcraft	2
Ingham	146	Shiawassee	13
Ionia	19	St. Clair	16
Iosco	5	St. Joseph	11
Iron	1	Tuscola	8
Isabella	6	Van Buren	6
Jackson	24	Washtenaw	40
Kalamazoo	50	Wayne	177
Kalkaska	2	Wexford	4
Kent	56	Out of state	657
Keweenaw	0	Out of country	12
Lake	0	Total	2,019

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979

Fair	Location	Date
Alcona County Fair Ms. Judith Long, Secy.	Harrisville P.O. Box 111, Lincoln 48742	August 12-19
Alger County Fair Mrs. Margaret Redmer, Secy.	Chatham R#1, Chatham 49816	August 9-11
Allegan County Agrl. Soc. Ms. Adeline J. Morton, Secy.	Allegan P.O. Box 241 Allegan 49010	September 8-15
Alpena County Agrl. Soc. Ronald Kenne, Secy.	Alpena 2379 Lake Winyah Road Alpena 49707	August 19-26
Arenac County Agrl. Soc. August Moll, Secy.	Standish 351 Dobler Road Sterling 48659	July 30- August 4
Armada Agrl. Soc. Mrs. Dorothy Klusendorf, Secy.	Armada 23380 - 30 Mile Road Armada 48005	August 14-19
Baraga County Fair James Krenek, Secy.	Pelkie 5 East Baraga Avenue L'Anse 49946	August 10-11
Barry County Agrl. Soc. William Christie, Secy.	Hastings 3095 Bedford Road Hastings 49058	July 15-21
Bay County Fair & Youth Exposition, Harold B. Reed, Secy.	Bay City 202 Braddock Street Bay City 48706	August 6-11
Berlin Fair Assoc. Harlind L. Throop, Secy.	Marne 214 Church Street Coopersville 49404	July 15-21
Berrien County Youth Fair Assoc., Inc. Mrs. Barbra J. Kolm, Secy.	Berrien Springs P.O. Box 7 Berrien Springs 49103	August 10-18
Branch County Agrl. & Ind. Soc. Leland Sanford, Secy.	Coldwater 105 Behnke Road Coldwater 49036	August 5-11
Calhoun County Agrl. & Ind. Soc. Mary L. Rice, Secy.	Marshall P.O. Box 311 Marshall 49068	August 12-18
Cass County Agrl. Fair Assoc. John Ruth, Secy.	Cassopolis Box 56, Cassopolis 49031	August 6-11
Chelsea Community Fair Frank Renton, Secy.	Chelsea P.O. Box 248 Chelsea 48118	August 21-25
Chippewa County Fair Ms. Delores Besteman, Secy.	Kinross P.O. Box 182 Kinross 49752	August 30 - September 3
Chippewa County Stalwart Agrl. Fair Assoc. Ms. Anne V. Bennett, Secy.	Stalwart Box 165 Stalwart 49789	September 6-8

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979 (cont.)

Fair	Location	Date
Clare County Agrl. Soc. O.D. Bayes, Secy.	Harrison 276 Lake Street Harrison 48625	July 29 - August 4
Clinton County 4-H Club Fair Ms. Theresa K. Dow, Secy.	St. Johns 1003 S. Oakland St. Johns 48879	August 13-15
Croswell Agrl. Soc. Stanley J. Gardner, Secy.	Croswell 71 Gaige Street *Croswell 48422*	July 16-21
Dickinson County Fair Board Thomas W. Purdy, Secy.	Norway Armory Building Kingsford 49801	August 31 - September 3
Eaton County 4-H Agrl. Soc., Inc. Gary Walters, Secy.	Charlotte P.O. Box 38 Charlotte 48813	July 22-28
Emmet County Fair Wilfred L. Sterzik, Secy.	Petoskey 6161 Old US-31 Petoskey 49770	August 20-25
Fowlerville Agrl. Soc. Thomas E. Braun, Secy.	Fowlerville 5075 Owosso Road Fowlerville 48836	July 16-21
Genesee County Agrl. Soc. Ms. Annette Ogg, Secy. ALL CORRESPONDENCE: Richard Stevens, Manager	Mt. Morris 10233 S. Vassar Road Grand Blanc 48439 G-4215 W. Pasadena Flint 48504	August 14-19
Gladwin County Fair Assoc. Ward Williams, Secy.	Gladwin 3872 W. M-61 Gladwin 48624	July 23-28
Gogebic County Fair Joseph T. Ruppe, Secy.	Ironwood Cooperative Extension Office P.O. Box 339, Ironwood 49938	August 9-12
Gratiot Agrl. Soc. Ms. Christine Kinkead, Secy.	Ithaca P.O. Box 181 Ithaca 48847	July 22-28
Gratiot County Fair for Youth Ms. Judi Williamson, Secy.	Alma Courthouse, Ithaca 48847	August 6-10
Hillsdale County Agrl. Soc. Wayne E. Nichols, Secy.	Hillsdale P.O. Box 289 Hillsdale 49242	September 23-29
Houghton 4-H Fair Assoc. Mrs. Terry Tikkanen, Secy.	Hancock Rt. 1, Box 171 Calumet 49913	August 24-26

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979 (cont.)

Fair	Location	Date
Hudsonville Community Fair Mrs. Margaret Scholten, Secy.	Hudsonville 5495 Park Ave Hudsonville 49426	August 20-25
Huron Community Fair Assoc. Al Hanson, Treas. & Mgr.	Bad Axe 275 Weitzel, Bad Axe 48413	August 5-11
Ingham County Fair Richard Cheney, Secy.	Mason 3645 Kipp Road Mason 48854	July 30 - August 4
Ionia Free Fair Assoc. D. Sheldon Crossman, Secy.	Ionia P.O. Box 96, Ionia 48846	August 3-12
Iosco County Agrl. Soc. Richard M. Samson, Secy.	Hale 109 N. Towerline Road Whittemore 48770	July 25-28
Iron County Fair Assoc. Wade W. Comish, Secy.	Iron River Rt. #1 Box 56 Iron River 49935	August 16-19
Isabella County Youth & Farm Fair Soc., Ms. Jean Dwyer, Secy.	Mt. Pleasant 1628 W. Remus Road Mt. Pleasant 48858	August 19-25
Jackson County Fair Herman Gumper, Secy.	Jackson 200 W. Ganson Street Jackson 49201	August 5-11
Kalamazoo County Agrl. Soc. Harold Webster, Secy.	Kalamazoo 9601 N. 40th St. Hickory Corners 49060	August 20-25
Kalkaska County Agrl. Fair Ms. Mary Beth Pender, Secy.	Kalkaska R. #1 Box 11 Kalkaska 49646	August 2-5
Kent County 4-H Agrl. Assoc. Ms. Marsha Wilcox, Secy.	Lowell 9654 Bailey Drive, N.E. Lowell 49331	August 6-11
Lake Odessa Civic & Agrl. Improvement Assoc., Ms. Linda Swift, Secy.	Lake Odessa 1122 Lakeview Drive Lake Odessa 48849	June 29 - July 4
Lapeer County Agrl. Soc. (also known as: Eastern Mich Fair) Douglas R. Perkins, Secy.	Imlay City P.O. Box 55 Imlay City 48444	August 27 - September 3
Lenawee County Agrl. Soc. Don Bills, Secy.	Adrian R. #1, Hudson 49247	August 19-26
Luce County Fall Harvest Show Kathryn Hastings, Secy.	Newberry County Building Newberry 49868	August 23-25
Mackinac County Fair Assoc. Ms. Marie Kaminsky, Secy.	Allenville Blackpoint Road Moran 49760	August 25-26
Manchester Community Fair Mrs. Dealoris Richardson, Secy.	Manchester 128 Riverside Drive Manchester 48158	August 14-18

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979 (cont.)

Fair	Location	Date
Manistee County Agrl. Soc. Geraldine Bernier, Secy.	Onekama Coop. Ext. Service P.O. Box 68, Onekama 49675	August 29 - September 3
Marion Farm Exhibit Assoc. Ms. Marsha Turner, Secy.	Marion 325 Sixth Street Marion 49665	July 3-7
Marquette County Harvest Festival Assoc., Mrs. Lillian E.Johnson, Secy.	Marquette 293 County Road 480 Marquette 49855	September 13-15
Mecosta County Agrl. Fair Assoc. Jerry G. Ward, Secy.	Big Rapids 23405 - 16 Mile Road Big Rapids 49307	July 8-14
Menominee County Fair Assoc. Richard A. Breyer, Secy.	Stephenson U.S. 41 Kakuk Bldg. Stephenson 49887	July 28-29
Midland County Agrl. & Hort. Soc. Ms. Margaret Wegner, Secy.	Midland 1719 N. Eastman Road Rt. #8, Midland 48640	August 12-18
Missaukee-Falmouth Agrl. Youth Show Ms. Wilma Huttenga, Secy.	Falmouth 1649 E. Lotan Road Falmouth 49632	August 7-10
Monroe County Fair Assoc. Glenn F. Stock, Secy.	Monroe 3775 S. Custer Road Monroe 48161	August 6-11
Montcalm County 4-H Fair Assoc. Ms. Grace Greenhoe, Secy.	Greenville 4238 Sloan Road Carson City 48811	July 16-21
Montmorency County 4-H Fair Assoc. Ms. Ruth L. Smith, Secy.	Atlanta R #3, Box 342 Atlanta 49709	August 15-18
Muskegon County 4-H Fair Werner A. Wurfel, Secy.	Ravenna 8553 Evanston Avenue Ravenna 49451	July 24-28
Newaygo County Agrl. Fair Assoc. Mrs. Mary Boerman, Secy.	Fremont 7024 W. 8th St. Fremont 49412	August 13-18
Northern District Fair Assoc. Mrs. Helen Gardner, Secy.	Cadillac 4785 S. 39½ Mile Road Cadillac 49601	August 13-18
Northern Michigan Fair Stanley Stempky, Secy.	Cheboygan 1203½ S. Main St. Cheboygan 49721	August 11-18
Northwestern Michigan Fair Henry R. Fitch, President	Traverse City 3893 Kyselka Road Traverse City 49684	August 27 - September 1

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979 (cont.)

Fair	Location	Date
Oakland County 4-H Leaders Assoc. Harvey G. Rodge, Secy.	Davisburg 649 W. Predmore Road Lake Orion 48035	July 30 - August 4
Oceana County Agrl. Soc. Clarence J. Aerts, Secy.	Hart 63 Spitler St. Hart 49420	August 30 - September 3
Ontonagon County Agrl. Assoc. Allan C. Slye, Secy.	Greenland Rt. #1, Box 306 Ontonagon 49953	August 23-26
Osceola 4-H & FFA Fair Ms. Dorothy Thompson, Secy.	Evart 3720 E. Oak Road Evart 49631	July 31 - August 4
Oscoda County 4-H Council, Inc. Ms. Beverly A. Schultz, Secy.	Mio 2014 E. Miller Rd. Fairview 48621	August 10-11
Otsego County Fair Assoc. Ms. June G. Weber, Secy.	Gaylord P.O. Box 636 Gaylord 49735	August 5-11
Ottawa County Fair Assoc. James Drooger, Secy.	Holland 6416 - 146th Avenue Holland 49423	July 23-28
Presque Isle County 4-H Leaders Assoc., Ms. Theresa Lietaert, Secy.	Posen Federal Bldg. Rogers City 49779	September 7-9
Saginaw County Agrl. Soc. Eugene T. Budd, Secy.	Saginaw 2701 East Genesee St. Saginaw 48601	September 8-15
Saline Community Fair Raymond Girbach, Secy.	Saline 13405 Mohart Road Saline 48176	September 4-8
Sanilac County 4-H Agrl. Soc. Ms. Judy Mixter, Secy.	Sandusky Federal Bldg. 55 S. Morse Sandusky 48471	August 6-11
Schoolcraft County Fair Assoc. Ms. Beth Burnis, Secy.	Manistique R. #1 - Box 96 Manistique 49854	August 10-11
Shiawassee County Agrl. Soc. Ms. Minnie M. Steiner, Secy.	Corunna 701 S. Norton St. Corunna 48817	August 5-11
Sparta Area Fair Assoc. Robert Knisely, Secy.	Sparta 11550 Sparta Avenue Sparta 49345	August 13-19
St. Clair County Agrl. Soc. Ms. Jeanne Lindsay, Secy.	Goodells 8725 Rynn Road Goodells 48027	August 7-11
St. Joseph County Grange Fair Assoc. Ms. Wilma Garman, Secy.	Centreville P.O. Box 578 Centreville 49032	September 16-22

TABLE XII-25. MICHIGAN COUNTY AND STATE FAIRS, LOCATION AND DATES: 1979 (cont.)

Fair	Location	Date
Tuscola County Fair Assoc. Walter Jackson, President	Caro 3212 W. Dixon Road Caro 48723	July 29 - August 4
Van Buren Youth Fair Assoc. Ms. Marcia H. Tinker, Secy.	Hartford Rt. #1 - Box 259 Lawrence 49064	July 21-28
Vassar Fair Assoc. Ms. Patricia Gilchrist, Secy.	Vassar 4087 S. Vassar Road Vassar 48768	July 8-14
Washtenaw County Farm Council Ms. Margaret Brusher, Secy.	Saline 2393 Tessmer Road Ann Arbor 48103	July 31 - August 3
Wayland Community Fair Frank Langley, Secy.	Wayland 788-135th Avenue Wayland 49348	August 17-18
Wayne County Fair Assoc., Inc. Ms. Phyllis Domine, Secy.	Belleville 21319 W. River Road Grosse Ile 48138	August 13-18
Western Michigan Fair Assoc. Roger L. Hansen, Secy.	Ludington 1591 S. Victory Corners Rd. Ludington 49431	August 6-11
STATE FAIRS		
Michigan State Fair William P. Upina, Manager	Detroit 1120 W. State Fair Ave. State Fairgrounds Detroit 48203	August 24 - September 3
Upper Peninsula State Fair Richard E. Ostrander, Manager	Escanaba P.O. Box 335 Escanaba 49829	August 14-19

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-26. PULPWOOD PRODUCTION IN MICHIGAN'S UPPER AND LOWER PENINSULAS, BY SPECIES: 1976 AND 1977

Species[a]	1976			1977		
	Upper peninsula	Lower peninsula	State total	Upper peninsula	Lower peninsula	State total
Aspen	274,746	261,708	536,454	310,011	298,421	608,432
Balsam fir	72,280	2,846	75,126	92,908	1,567	94,475
Birch	49,124	19,460	68,584	52,168	15,278	67,446
Maple	94,694	53,406	148,100	90,367	63,152	153,789
Oak	1,219	81,375	82,594	1,292	109,733	111,025
Other hardwoods	75,890	20,832	96,722	61,430	18,720	80,150
Cedar	5,391	0	5,391	6,663	0	6,663
Hemlock	78,990	65	79,055	62,013	63	62,076
Pine	130,883	150,240	281,123	130,492	132,205	262,697
Spruce	30,501	1,357	31,858	47,523	340	47,863
Tamarack	1,153	0	1,153	2,870	0	2,870
TOTAL ROUNDWOOD	814,871	591,289	1,406,160	858,007	639,479	1,497,486
Residues[b] used as pulpwood:						
Softwood	6,583	21,173	27,756	7,867	8,269	16,136
Hardwood	57,183	78,097	135,280	93,772	54,282	148,054
Total residues	63,766	99,270	163,036	101,639	62,551	164,190
TOTAL ALL PULPWOOD	878,637	690,559	1,569,196	959,646	702,025	1,661,676

SOURCE: Michigan Department of Natural Resources, special release.

a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.

b. Slabs, edgings, veneer cores, and so forth.

TABLE XII-27. PULPWOOD PRODUCTION IN MICHIGAN, BY SPECIES: 1970-1977

(Thousand standard cords)

Item[a]	1970	1971	1972	1973	1974	1975	1976	1977
Aspen	596	599	601	672	756	446	536	608
Balsam fir	67	53	60	68	74	74	75	94
Pine[b]	240	253	229	211	262	235	281	262
Spruce	51	45	38	46	40	45	32	47
Birch	33	23	36	59	85	36	69	67
Hemlock	69	42	50	58	53	50	79	62
Tamarack	3	2	3	5	2	2	1	3
Misc. hardwoods	196	208	326	376	228	221	333	352
Residue and chips	152	135	161	223	196	182	163	164
TOTAL	1,406	1,362	1,508	1,720	1,910	1,291	1,406	1,661

SOURCE: Michigan Department of Natural Resources, special release.

a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.

b. Includes white, red, and jack pine.

TABLE XII-28. AREA OF COMMERCIAL FOREST LAND, BY FOREST TYPE IN MICHIGAN: 1970

(In thousands of acres)

Forest type	All acres
White-red-jack pine	1,941
Spruce-fir	3,288
Oak-hickory	2,046
Elm-ash-cottonwood	1,725
Maple-beech-birch	5,164
Aspen-birch	4,636
TOTAL	18,795

SOURCE: For 1970 figures, U.S. Forest Service, Forest Atlas of the Midwest (St. Paul, Minnesota: 1978).

TABLE XII-29. SELECTED FISHERY STATISTICS FOR MICHIGAN: 1942-1977

Year	Annual fish catch		Number of plants involved[b]	Value of manufactured fishery products ($000)
	Quantity (000 lbs)	Value[a] ($000)		
1942	26,268	3,137	n.a.	490
1943	25,700	4,129	n.a.	536
1944	22,110	3,861	n.a.	609
1945	23,960	5,095	n.a.	928
1946	24,159	4,058	n.a.	526
1947	25,546	3,914	n.a.	585
1948	30,137	5,175	n.a.	608
1949	25,534	4,116	n.a.	553
1950	23,152	3,497	74	2,094
1951	25,021	3,409	n.a.	2,006
1952	29,232	4,162	n.a.	1,934
1953	25,013	3,315	74	1,739
1954	27,231	3,203	96	3,026
1955	25,430	2,945	100	3,384
1956	24,636	2,975	102	3,624
1957	22,477	2,536	119	3,671
1958	25,487	2,944	129	4,979
1959	22,323	2,681	115	3,469
1960	25,021	2,997	92	2,576
1961	24,535	2,931	67	4,104
1962	22,121	2,479	57	4,205
1963	20,326	2,323	66	3,900
1964	19,769	2,522	66	2,023
1965	19,748	2,757	66	2,587
1966	21,284	2,568	62	2,275
1967	29,221	2,846	64	2,357
1968	23,953	2,832	59	2,344
1969	21,948	2,723	56	4,578
1970	21,169	2,875	52	n.a.
1971	19,137	2,671	49	4,419
1972	14,213	2,985	47	8,801
1973	16,869	3,688	47	5,300
1974	15,454	3,926	47	n.a.
1975	12,256	3,653	46	n.a.
1976	14,438	4,145	44	n.a.
1977	11,626	3,275	n.a.	n.a.

SOURCES: National Oceanic and Atmospheric Administration, Fishery Statistics of the United States, 1942 through 1973 (Washington, D.C.: annually), Statistical Digest no. 67, p. 306 (1973), and Fisheries of the United States, 1977 (Washington, D.C.: 1978), Current Fishery Statistics, 7500, pp. 4, 80 (1977).

a. Amount paid to fishermen.

b. Wholesale and manufacturing firms only.

n.a.: not available.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in mining are tabulated in the Census of Mineral Industries, where they are further classified on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. Mineral processing, not in conjunction with extraction, is classified in manufacturing. A major difference between census statistics and those published by the U. S. Bureau of Mines and the Geological Survey Division of the Michigan Department of Natural Resources is the exclusion of cement manufacturing in the former and its inclusion in the latter. Another difference stems from the treatment of government-owned operations, such as gravel pits mined by county road crews. Census statistics would exclude those establishments, whereas the Bureau of Mines and the Geological Survey Division would not. For the most part, the Geological Survey Division and Bureau of Mines are interested in reporting mineral production, irrespective of the nature of ownership of the mine. Census statistics focus on the economic nature of establishments. The Census Bureau does publish statistics on mining operations which are carried on in secondary activities at manufacturing establishments. These are reproduced in Table XIII-5.

Companies with operations at more than one locati... must report separately for each establishment; the tabulations are based on these reports. Establishments not engaged in mineral extraction are classified in another industry. For example, the Michigan oil wells of an integrated petroleum company would be reported as a mineral establishment, but the refinery would be a manufacturing establishment, and company-operated retail or wholesale outlets for petroleum products would be classified in retail trade or wholesale trade. A mining establishment generally represents a unit operation even though there may be several pits, shafts, or wells. The operations of natural gas plants are included in mining inasmuch as these establishments engage in separating hydrocarbons for use or further processing elsewhere. Establishments without paid employees and with shipments or expenditures totaling less than $500 were excluded.

The Bureau of the Mines of the U. S. Department of Interior publishes annually its Minerals Yearbook. A chapter, "The Mineral Industry of Michigan," is prepared in cooperation with the Geological Survey Division of the Michigan Department of Natural Resources. The Geological Survey Division also issues releases from time to time dealing with Michigan's mineral industries and publishes Michigan's Oil and Gas Fields and a directory entitled Michigan Mineral Producers.

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TABLE XIII-1. VALUE OF MICHIGAN FUEL AND METALLIC AND NONMETALLIC MINERAL PRODUCTION: 1944-1978

(In thousands of dollars)

Year	Fuel	Metallic	Nonmetallic[a]	Total
1944	29,184	50,169	61,140	140,493
1945	28,607	43,545	55,894	128,046
1946	31,129	35,325	67,228	133,682
1947	37,847	56,943	75,479	170,269
1948	51,807	71,636	90,672	214,116
1949	48,082	65,102	94,403	207,608
1959	45,475	84,212	108,787	238,474
1951	40,279	90,279	127,052	257,530
1952	38,093	94,763	134,234	267,089
1953	37,333	105,236	145,125	287,693
1954	35,667	82,525	168,375	286,550
1955	33,623	145,380	192,354	371,357
1956	32,538	157,219	216,806	406,563
1957	31,785	144,235	230,790	406,810
1958	29,701	102,119	217,703	349,523
1959	33,719	97,363	254,240	385,322
1960	50,629	134,098	250,402	435,130
1961	62,144	125,956	255,164	443,263
1962	58,127	124,431	255,131	437,689
1963	58,099	155,277	272,208	485,583
1964	55,656	188,979	300,377	545,011
1965	54,685	204,241	30,875	526,801
1966	54,606	211,355	323,628	589,589
1967	53,371	207,975	334,104	595,449
1968	56,600	213,930	347,476	612,826
1969	55,580	248,945	354,904	659,445
1970	51,326	249,332	383,460	684,118
1971	49,292	226,325	380,166	655,783
1972	57,847	233,331	407,333	698,511
1973	80,194	276,526	460,230	816,950
1974	190,134	369,225	497,942	1,057,301
1975	327,456	425,201	492,695	1,245,352
1976	435,234	487,172	560,838	1,483,244
1977	506,975	418,667	592,756	1,518,398
1978[p]	594,802	619,568	589,668	1,804,038

SOURCE: Michigan Department of Natural Resources, special release.

a. Includes cement, classified in manufacturing by the U.S. Bureau of the Census.

P: Preliminary.

TABLE XIII-2. VALUE OF MICHIGAN MINERAL PRODUCTION, BY PRODUCT: 1971-1978

(In thousands of dollars)

Mineral	1971	1972	1973	1974	1975	1976	1977	1978[P]
Iron ore	167,015	165,370	180,158	257,944	340,852	427,339	357,565	568,662
Cement	109,833	117,368	129,627	146,823	138,357	153,751	157,099	194,034
Petroleum	38,891	41,568	59,573	154,952	262,352	329,637	360,995	427,881
Sand & gravel	63,129	54,445	74,231	82,710	73,397	78,372	97,882	103,000
Nat. salines[a]	93,150	104,672	121,086	112,350	116,876	124,122	138,712	142,831
Copper	58,321	66,783	94,193	108,761	82,093	59,113	59,115	49,071
Salt	49,007	50,761	53,732	62,055	67,240	79,740	78,864	83,979
Stone[b]	33,131	32,770	40,768	47,625	46,461	64,411	84,990	n.a.
Lime	20,117	22,647	26,055	30,036	36,540	39,686	42,015	46,764
Not. gas	6,742	12,420	17,306	35,182	65,104	106,739	145,970	166,921
Gypsum (crude)[c]	5,585	7,267	8,538	7,258	5,936	8,760	10,769	13,460
Clay & shale	3,366	3,715	3,304	4,074	3,580	4,741	5,126	n.a.
Nat. gas liquids[e]	3,659	3,859	3,314	(f)	(f)	(f)	(f)	(f)
Peat	2,454	2,190	2,172	3,810	3,206	3,714	4,754	4,750
Silver	(g)	(g)	(g)	(g)	2,256	1,223	1,987	1,835
Marl	111	81	79	258	153	156	63	n.a.
Miscellaneous	1,271	1,595	2,811	3,463	872	936	856	850
TOTAL	655,783	698,511	816,950	1,057,301	1,245,274	1,483,244	1,518,398	1,804,038

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually), and special release.

NOTE: 1977 and 1978 totals adjusted to avoid double counting: stone used in the manufacture of cement and lime in Michigan; sandstone crushed to manufacture industrial sand; and shale, clay, gypsum, and sand used in cement manufacturing in Michigan.

a. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.

b. Does not include limestone and dolomite used in the manufacture of cement and lime (1976 only that used within Michigan has been deducted).

c. 1976 value of gypsum used in Michigan to manufacture cement has been deducted.

d. Title brick, pottery, clay used for dement, lightweight aggregate, and miscellaneous. (1976 value used in Michigan for cement has been deducted).

e. Includes liquids stripped from gas delivered via interstate pipeline.

f. Included in petroleum and natural gas according to Proration Unit.

g. Included in miscellaneous.

P. Preliminary

n.a.: not available.

TABLE XIII-3. QUANTITY OF SELECTED MINERALS PRODUCED IN MICHIGAN: 1972-1978

Minerals	Units of measurement	1972	1973	1974	1975	1976	1977	1978[P]
Iron ore	1,000 long tons[a]	11,828	12,314	11,531	14,043	15,688	12,016	17,018
Cement	1,000 barrels[b]	32,721	34,516	32,553	25,582	28,359	27,647	30,122
Petroleum	1,000 barrels (42 gal.)	12,990	14,530	18,102	24,420	30,421	32,965	34,667
Sand & gravel	1,000 short tons[c]	59,467	62,555	60,073	47,051	47,318	46,060	47,000
Nat. salines[d]	1,000 short tons	1,221	1,107	1,407	1,085	1,193	1,267	n.a.
Copper	1,000 pounds	131,937	151,779	131,038	147,380	86,930	85,961	78,301
Salt	1,000 short tons	4,358	4,818	4,445	3,895	4,189	3,947	4,056
Stone[e]	1,000 short tons	22,822	26,954	28,140	23,820	41,418	40,500	41,908
Lime	1,000 short tons	1,503	1,545	1,528	1,434	1,456	1,347	1,272
Natural gas	1,000 thou. cu. ft.	33,568	43,704	69,806	102,664	120,250	133,226	150,535
Gypsum (crude)	1,000 short tons	1,650	1,882	1,482	1,224	1,837	1,924	2,176
Clay & shale[f]	1,000 short tons	2,514	2,151	2,161	1,818	1,934	2,007	2,122
Natural gas liquids[g]	1,000 gallons	55,132	48,742	55,230	218,888	(h)	(h)	(h)
Peat	1,000 short tons	219	232	244	245	300	291	245
Silver	1,000 fine oz.	n.a.	654	537	632	289	447	354
Marl	1,000 short tons	79	73	151	85	66	29	n.a.

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually), and special release.

a. Long tons (2240 pounds).
b. Barrels (376 pounds).
c. Short tons (2000 pounds).
d. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.
e. Does not include limestone and dolomite used in the manufacture of cement and lime prior to 1976.
f. Tile brick, pottery, clay used for cement, lightweight aggregate, and miscellaneous.
g. Includes liquids stripped from gas delivered via interstate pipeline.
h. Natural gas liquids are figured into petroleum and natural gas production.

P: Preliminary
n.a.: not available.

TABLE XIII-4. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS PRIMARILY ENGAGED IN OIL EXPLORATION AND OTHER MINING: 1954, 1958, 1963, 1967, AND 1972

Item	1954	1958	1963	1967	1972
Number of establishments	567	539	691	459[a]	409[a]
With 20 or more employees	94	87	78	85	69
Number of employees[b] (1,000)	16.4	14.3	12.2	12.2	11.4
Payroll, all employees[c] ($1,000,000)	76.3	73.2	75.2	88.0	119.9
Production, development, and exploration workers:					
Number[d] (1,000)	13.7	11.9	10.1	10.1	9.2
Man-hours[e] (1,000,000)	28.2	22.1	19.9	20.5	18.9
Wages[c] ($1,000,000)	61.1	59.3	59.5	71.3	91.9
Value added in mining[f] ($1,000,000)	149.1	158.0	223.1	289.9	306.3
Selected expenses ($1,000,000): Supplies, purchases for resale, purchased fuels and electric energy, minerals received for preparation, contract work, and purchased machinery installed	92.3[g]	85.4	169.5	246.6	229.3
Value of shipments and receipts ($1,000,000)	194.7	218.3	316.4	483.7	467.3
Capital expenditures[h] ($1,000)	46.8	25.0	76.1	52.8	68.3

SOURCE: Bureau of the Census, U.S. Census of Mineral Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), MIC72 (2)-3, Table 1.

a. Excludes single unit establishments without employees.

b. Production workers plus mid-March figure for all other employees in mineral industries, and administrative and auxiliary offices.

c. Includes all forms of compensation before deductions for Social Security, income tax, and so forth.

d. Average for the four payroll periods ended nearest the 15th of March, May, August, and November.

e. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, and so forth, when the employee was absent.

f. Computed by subtracting the cost of supplies, and so forth, from the value of shipments and receipts plus capital expenditures.

g. Excludes the cost of natural gas processed at natural gas liquid plants.

h. Includes development and exploration expenditures, new constructions, and machinery.

TABLE XIII-5. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS PRIMARILY ENGAGED IN MANUFACTURING, WITH MINING OPERATIONS, BY MINING INDUSTRY: 1972

Item	Crushed and broken stone	Clay and related materials	Total
Number of establishments	4	6	23
With 20 employees or more	2	2	4
Number of employees (1,000)	.1	.1	.3
Payroll			
All employees ($1,000,000)	1.7	1.1	3.5
Production, development, and exploration workers:			
Number (1,000)	.1	.1	.3
Man-hours (1,000,000)	.2	.2	.6
Wages ($1,000,000)	1.7	1.1	3.5
Value added in mining ($1,000,000)	13.2	2.2	18.0
Expenses	1.2	.9	2.6
Value of shipments and receipts ($1,000,000)	14.4	3.1	20.6
Capital expenditures	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, U.S. Census of Mineral Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), MIC72 (2)-3, Table 2B.

n.a.: not available.

TABLE XIII-7. VALUE OF MINERALS PRODUCED IN MICHIGAN, BY COUNTY: 1973-1976

(In thousands of dollars)

County	1973	1974	1975	1976
Alcona	139	134	124	187
Alger	(a)	88	77	207
Allegan	1,295	1,824	2,476	2,292
Alpena	50,072	66,819	61,659	66,941
Antrim	437	786	3,697	3,401
Arenac	1,723	2,271	2,638	2,831
Baraga	(a)	126	110	183
Barry	574	845	808	872
Bay	12,842	11,630	11,807	13,112
Benzie	20	23	33	35
Berrien	(a)	4,487	4,691	5,095
Branch	(a)	355	488	217
Calhoun	5,702	11,772	17,920	22,016
Cass	(a)	1,046	1,358	987
Charlevoix	(a)	19,506	21,278	28,074
Cheboygan	154	179	188	166
Chippewa	(a)	5,903	5,203	6,129
Clare	1,606	3,107	3,931	3,751
Clinton	1,036	1,132	1,805	1,488
Crawford	3,383	5,689	9,737	11,573
Delta	304	223	581	621
Dickinson	31,470	40,009	49,768	55,526
Eaton	1,348	2,387	4,980	8,202
Emmet	12,990	13,959	16,025	15,968
Genesee	1,102	692	430	505
Gladwin	1,098	2,182	2,558	2,736
Gogebic	(a)	162	249	158
Grand Traverse	2,639	12,274	36,121	66,929
Gratiot	19,577	8,398	11,667	11,114
Hillsdale	10,395	15,216	17,619	16,388
Houghton	(a)	332	1,375	2,839
Huron	1,348	1,754	1,800	1,746
Ingham	8,819	20,746	29,598	29,809
Ionia	(a)	397	627	407
Iosco	(a)	6,556	5,569	9,728
Iron	3,466	6,668	3,232	4,276
Isabella	1,820	1,905	1,918	1,917
Jackson	4,343	6,804	6,991	6,833
Kalamazoo	1,454	6,210	1,452	1,668
Kalkaska	10,589	36,919	60,218	59,719
Kent	5,883	6,011	5,035	5,369
Keweenaw	134	23	31	36

TABLE XIII-7. VALUE OF MINERALS PRODUCED IN MICHIGAN, BY COUNTY: 1973-1976 (cont.)

(In thousands of dollars)

County	1973	1974	1975	1976
Lake	437	777	973	960
Lapeer	2,174	3,750	2,831	3,654
Leelanau	(a)	371	299	211
Lenawee	382	984	1,043	1,021
Livingston	4,260	4,247	4,372	4,128
Luce	95	44	104	106
Mackinac	(a)	14,098	12,232	13,354
Macomb	3,461	3,206	2,378	2,547
Manistee	37,035	39,297	61,271	125,181
Marquette	147,424	213,496	288,303	369,226
Mason	32,961	58,968	57,896	68,837
Mecosta	595	972	850	772
Menominee	213	46	174	359
Midland	59,170	42,545	38,171	31,613
Missaukee	3,028	6,394	7,565	7,489
Monroe	26,553	28,925	23,537	33,132
Montcalm	623	1,082	1,140	1,244
Montmorency	59	152	5	641
Muskegon	3,067	3,388	2,735	3,811
Newaygo	136	375	559	205
Oakland	14,897	17,739	16,440	18,497
Oceana	458	615	1,541	1,286
Ogemaw	3,334	4,465	6,133	6,729
Ontonagon	96,660	111,470	96,448	58,202
Osceola	2,557	3,510	4,583	3,464
Oscoda	16	56	55	105
Otsego	11,957	38,393	68,342	78,706
Ottawa	4,752	6,431	5,269	5,633
Presque Isle	25,736	31,328	30,147	32,826
Roscommon	1,375	3,130	4,113	4,439
Saginaw	1,666	2,715	2,350	1,945
St. Clair	23,718	30,729	40,996	47,488
St. Joseph	297	571	540	490
Sanilac	1,281	1,996	2,931	1,744
Schoolcraft	1,254	1,113	1,775	1,423
Shiawassee	1,954	1,202	952	1,370
Tuscola	1,411	2,234	2,456	3,063
Van Buren	122	706	451	338
Washtenaw	2,112	2,248	2,832	2,792
Wayne	67,759	69,552	76,795	83,986
Wexford	95	1,016	3,176	6,542
Various		193	574	
MICHIGAN	816,950	1,057,301	1,283,212	1,485,646

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers, 1974 through 1977 (Lansing: annually), Table 3 (1976).
(a): Data withheld to avoid the possibility of disclosing information for a single company.

TABLE XIII-8. DISTRIBUTION OF MICHIGAN MINERAL ESTABLISHMENTS, BY COUNTY AND EMPLOYMENT CLASS: 1972

County	Employment size class				Total establishments
	1 to 19	20 to 99	100 to 249	250 and over	
Alcona	2	0	0	0	2
Allegan	13	0	0	0	13
Alpena	2	1	1	0	4
Antrim	1	0	0	0	1
Arenac	15	0	0	0	15
Baraga	0	1	0	0	1
Barry	4	0	0	0	4
Bay	10	0	0	0	10
Berrien	9	2	0	0	11
Branch	3	0	0	0	3
Calhoun	18	1	0	0	19
Cass	3	0	0	0	3
Charlevoix	2	0	0	0	2
Cheboygan	1	0	0	0	1
Chippewa	1	0	1	0	2
Clare	10	0	0	0	10
Clinton	5	0	0	0	5
Crawfard	6	0	0	0	6
Delta	1	0	0	0	1
Dickinson	1	0	0	1	2
Eaton	10	0	0	0	10
Emmet	1	0	0	0	1
Genesee	7	0	0	0	7
Gladwin	7	0	0	0	7
Grand Traverse	6	0	0	0	6
Gratiot	5	0	0	0	5
Hillsdale	22	2	0	0	24
Houghton	4	0	0	0	4
Huron	2	2	0	0	4
Ingham	16	3	0	0	19
Ionia	2	0	0	0	2
Iosco	2	2	0	0	4
Iron	1	0	1	0	2
Isabella	29	3	1	0	33
Jackson	22	1	0	0	23
Kalamazoo	5	1	0	0	6
Kalkaska	12	1	0	0	13
Kent	20	0	0	0	20
Keweenaw	1	0	0	0	1
Lake	1	0	0	0	1

TABLE XIII-8. DISTRIBUTION OF MICHIGAN MINERAL ESTABLISHMENTS, BY COUNTY AND EMPLOYMENT CLASS: 1972 (cont.)

County	Employment size class				Total establishments
	1 to 19	20 to 99	100 to 249	250 and over	
Lapeer	5	1	0	0	6
Lenawee	6	0	0	0	6
Livingston	7	2	0	0	9
Mackinac	0	0	1	0	1
Macomb	14	2	0	0	16
Manistee	4	0	0	0	4
Marquette	4	3	3	3	13
Mason	0	1	0	0	1
Mecosta	10	0	0	0	10
Midland	5	0	0	0	5
Missaukee	5	0	0	0	5
Monroe	2	1	0	0	3
Montcalm	8	0	0	0	8
Montmorency	2	0	0	0	2
Muskegon	3	1	0	0	4
Newaygo	2	0	0	0	2
Oakland	22	7	0	0	29
Oceana	1	0	0	0	1
Ogemaw	10	0	0	0	10
Ontonagon	0	0	0	1	1
Osceola	11	0	0	0	11
Oscoda	1	0	0	0	1
Otsego	8	3	0	0	11
Ottawa	9	0	0	0	9
Presque Isle	4	0	0	1	5
Roscommon	7	0	0	0	7
Saginaw	7	0	0	0	7
St. Clair	17	1	0	0	18
St. Joseph	1	0	0	0	1
Sanilac	3	1	0	0	4
Schoolcraft	0	0	0	1	1
Shiawassee	7	0	0	0	7
Tuscola	11	0	0	0	11
Van Buren	3	0	0	0	3
Washtenaw	12	1	0	0	13
Wayne	21	3	1	0	25
Wexford	4	1	0	0	5
TOTAL	340	51	11	7	409

SOURCE: Bureau of the Census, U.S. Census of Mineral Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), MIC72(2)-3, Table 6.

NOTE: There are no mineral establishments in Alger, Gogebic, and Menominee counties.

TABLE XIII-6. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS PRIMARILY ENGAGED IN MINING, BY INDUSTRY: 1972

Industry	Number of establishments	Payroll, all employees[a] ($1,000,000)	Production workers		Value added in mining[c] ($1,000,000)
			Man-hours[b] (1,000,000)	Wages ($1,000,000)	
Metal mining	21	64.1	9.7	49.3	162.4
Iron ores	13	(D)	(D)	(D)	(D)
Copper ores	3	(D)	(D)	(D)	(D)
Oil and gas extraction	165	17.2	3.0	12.8	61.1
Crude petroleum/natural gas	79	6.4	.8	3.8	36.4
Oil and gas field services	80	(D)	(D)	(D)	(D)
Drilling oil/gas wells	31	5.4	1.0	4.6	8.7
Oil/gas exploration services	10	1.6	.4	1.4	5.6
Oil/gas field services, N.E.C.	39	(D)	(D)	(D)	(D)
Nonmetal, minerals, exc. fuels	223	38.6	6.2	29.8	82.8
Crushed, broken stone, riprap	29	16.9	2.7	13.3	32.6
Crushed/broken limestone	21	16.2	2.6	12.8	31.6
Sand and gravel	176	17.9	2.7	13.5	42.2
Construction sand/gravel	165	14.9	2.3	11.5	35.1
Industrial sand	11	3.0	.4	2.0	7.1
Chemical, fertilizer minerals	1	(D)	(D)	(D)	(D)
Rock salt	1	(D)	(D)	(D)	(D)
Misc. nonmetallic minerals	16	(D)	(D)	(D)	(D)
Gypsum	3	1.3	.3	1.0	2.9
Nonmetallic minerals, N.E.C.	13	(D)	(D)	(D)	(D)
TOTAL	409	119.9	18.9	91.9	306.3

SOURCE: U.S. Bureau of the Census, Census of Mineral Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), MIC72(2)-3, Table 2A.

a. Includes all forms of compensation before deductions for Social Security, income tax, and so forth.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations and so forth when the employee was absent.

c. Computed by subtracting the cost of supplies, and so forth, from the value of shipments and receipts plus capital expenditures.

(D): Data withheld to avoid the possibility of disclosure of confidential information for a single company.

TABLE XIII-10. NUMBER OF ACTIVE MINES, SHIPMENTS, AND AVERAGE NUMBER OF MEN EMPLOYED IN IRON ORE MINING IN MICHIGAN: 1947-1978

Year	Number of active mines	Shipments by range (thousands of long tons)			Employment
		Marquette	Menominee	Gogebic	
1947	36	5,543	3,668	3,710	6,227
1948	34	4,898	4,086	3,915	6,312
1949	36	4,253	3,587	3,156	6,151
1950	37	4,955	4,144	3,827	6,809
1951	37	5,647	4,708	3,319	6,908
1952	37	4,517	4,278	3,004	6,972
1053	40	5,572	4,621	3,188	6,534
1954	39	3,675	3,670	2,378	6,625
1955	37	6,640	5,326	3,183	6,093
1956	36	5,689	3,889	2,958	6,209
1957	36	5,993	4,297	2,837	6,311
1958	32	3,722	3,095	1,394	4,912
1959	27	3,530	2,478	1,251	4,163
1960	27	4,945	4,121	1,890	4,723
1961	24	4,183	3,886	1,362	3,466
1962	21	4,500	3,462	1,480	2,857
1963	19	5,850	4,304	813	3,586
1964	18	7,945	4,624	1,403	3,912
1965	16	8,925	4,361	773	3,775
1966	15	9,660	4,328	364	3,690
1967	12	10,165	3,630	239[a]	3,430
1968	11	9,367	3,449	0	3,090
1969	11	11,163	3,390	0	3,061
1970	7	10,336	2,925	0	2,798
1971	7	9,331	2,834	0	2,425
1972	6	9,251	2,577	0	2,226
1973	6	9,941	2,374	0	2,322
1974	6	9,009	2,522	0	2,548
1975	6	12,143	2,235	0	2,949
1976	6	13,362	2,326	0	3,032
1977	6	9,683	2,332	0	3,344
1978	6	15,934	2,252	0	3,294

SOURCE: Michigan Department of Natural Resources, Geological Survey Division, special release.

a. Peterson mine permanently closed 29 January 1967. Stockpile shipments completed in 1967.

TABLE XIII-11. PRODUCTION AND SHIPMENTS OF PORTLAND AND MASONRY CEMENT FROM MICHIGAN MILLS: 1947-1978

Year	Number of plants	Production (barrels)	Shipments (barrels)	Value of shipments
1947	7	10,211,809	10,470,766	$18,868,187
1948	7	11,410,085	11,117,000	23,533,000
1949	7	12,767,500	12,747,791	28,823,055
1950	7	12,967,102	12,854,423	29,619,766
1951	7	14,393,599	14,112,639	35,121,324
1952	7	14,790,587	14,760,783	35,819,041
1953	7	15,532,853	15,853,096	41,860,465
1954	7	16,671,383	16,711,710	45,691,867
1955	7	18,204,827	19,738,400	58,048,378
1956	8	10,327,814	21,880,222	67,798,262
1957	8	21,015,000	22,045,034	71,605,137
1958	8	19,841,000	20,911,990	70,432,501
1959	8	21,561,000	23,025,928	77,323,974
1960	9	20,971,000	22,351,498	77,694,087
1961	9	21,661,000	23,462,554	79,638,973
1962	9	23,070,000	24,198,903	77,601,954
1963	9	24,194,000	26,694,665	81,446,667
1964	9	26,802,000	28,133,856	89,270,172
1965	8	27,018,000	29,135,052	92,369,052
1966	8	28,848,000	29,683,903	92,634,187
1967	9	31,350,682	31,131,016	90,810,328
1968	9	32,779,308	32,868,574	104,684,405
1969	9	31,982,736	31,790,616	103,897,422
1970	9	31,982,091	32,318,659	110,513,273
1971	9	33,723,094	33,750,455	109,833,119
1972	9	32,717,784	32,719,919	117,368,094
1973	9	33,781,604	34,515,369	129,627,462
1974	8	n.a.	32,552,275	146,822,510
1975	8	n.a.	25,581,964	138,356,710
1976	8	28,358,195	27,388,260	153,751,000
1977	8	30,935,166	27,646,056	157,098,598
1978 p	7	n.a.	30,121,497	182,439,000

SOURCE: Michigan Department of Natural Resources, special release.

NOTE: one barrel = 376 pounds or 0.188 short tons.

P: Preliminary.

n.a.: not available.

TABLE XIII-12. COPPER PRODUCTION IN MICHIGAN, BY COUNTY: 1947-1978

(In pounds)

Year	Houghton	Keweenaw	Ontonagon	Total
1947	29,478,214	17,102,786	473,473	47,054,473
1948	30,742,279	23,567,382	124,381	54,434,042
1949	21,068,020	17,430,147	—	38,498,167
1950	24,275,530	27,499,933	12,554	51,788,017
1951	21,233,634	28,063,771	459	49,297,864
1952	19,395,760	23,657,231	886,313	43,939,304
1953	19,779,610	27,237,107	982,973	47,999,690
1954	19,902,724	23,805,586	1,078,493	44,786,803
1955	17,751,476	17,534,792	59,910,911	95,197,179
1956	21,399,846	25,267,891	76,612,498	123,280,235
1957	21,781,882	22,843,409	69,021,852	113,647,143
1958	16,345,030	23,886,930	81,827,063	122,059,023
1959	20,689,233	22,730,365	69,661,935	113,081,533
1960	21,704,276	18,592,215	75,142,046	115,438,537
1961	20,175,410	18,337,000	103,756,178	142,268,588
1962	24,072,160	13,075,067	106,613,451	143,760,678
1963	22,879,603	13,000,730	113,900,191	149,780,524
1964	19,818,237	9,507,806	108,458,751	137,784,794
1965	15,759,103	6,414,944	123,743,392	145,917,439
1966	17,433,796	8,128,529	121,181,717	146,744,040
1967	16,695,626	7,763,357	92,731,257	117,190,240
1968	6,592,118	4,696,188	137,092,516	148,380,322
1969	0	0	149,952,283	149,952,283
1970	0	0	135,086,800	135,086,800
1971	0	0	112,155,147	112,155,147
1972	0	0	131,937,378	131,937,378
1973	0	0	151,678,939	151,678,939
1974	0	0	131,037,602	131,037,602
1975	1,455,657	0	140,819,850	142,275,507
1976	3,886,218	0	83,044,081	86,930,299
1977	0	0	85,960,551	85,960,551
1978	0	0	78,301,136	78,301,136

SOURCE: Michigan Department of Natural Resources, special release.

TABLE XIII-13. CONSTRUCTION AGGREGATE AND INDUSTRIAL SAND SOLD OR USED IN MICHIGAN, BY MAJOR USE CATEGORY: 1977

(In thousands of short tons and thousands of dollars)

Category	Quantity	Value[a]
Construction aggregate		
Concrete aggregate (residential, nonresidential, highways, bridges, dams, waterworks, airports, and so forth)	12,979	$ 26,847
Concrete products (cement blocks, bricks, pipe, and so forth)	2,808	6,386
Asphaltic concrete aggregates and other bituminous mixtures	5,670	9,306
Road bases and coverings	13,482	23,520
Fill	4,785	5,427
Railroad ballast	35	109
Other uses	615	1,000
TOTAL[b]	40,374	72,596

SOURCE: U.S. Bureau of Mines, special release.
NOTE: Includes processed and unprocessed sand and gravel.
a. Values f.o.b. plant of blended processed sand and gravel used as construction aggregate. Unit value of construction aggregate is generally higher than the unit value of unblended processed sand or gravel.
b. Totals may not add due to rounding.

TABLE XIII-14. INDUSTRIAL SAND AND GRAVEL SOLD OR USED IN MICHIGAN, BY PRODUCER AND USE: 1977

(In thousands of short tons and thousands of dollars)

Use	Quantity	Value
Molding	4,495	$ 21,200
Glass	454	2,908
Engine	24	110
Blast	3	17
Other[a]	1,136	4,712
TOTAL[b]	6,112	28,947

SOURCE: U.S. Bureau of Mines, special release.
a. Includes sand and gravel used for grinding and polishing, foundry, filtration, and other uses.
b. Totals may not add due to rounding.

TABLE XIII-15. STONE SOLD OR USED BY MICHIGAN PRODUCERS, BY KIND AND BY USE: 1976 AND 1977

Kind and use	1976 Quantity (1,000) short tons	1976 Value ($1,000)	1977 Quantity (1,000) short tons	1977 Value ($1,000)
Kind				
Dimension[a]	8	129	8	147
Crushed and broken				
Limestone and dolomite	40,214	77,296	39,489	80,725
Marl	66	156	22	67
Sandstone	(D)	(D)	(D)	(D)
Traprock	(D)	(D)	(D)	(D)
Other[b]	1,197	4,751	1,005	4,179
TOTAL[c]	41,477	82,202	40,517	84,971
Use[d]				
Lime manufacture[e]	11,120	20,700	10,630	21,810
Flux stone	10,380	21,570	9,422	21,490
Cement manufacture	8,272	14,900	8,314	15,160
Concrete aggregate	4,531	7,643	4,444	8,248
Roadstone	1,223	1,844	2,540	5,273
Bituminous aggregate	954	1,864	1,231	2,480
Dense graded roadbase stone	829	1,779	1,126	2,547
Macadam aggregate	1,934	4,275	(D)	(D)
Agricultural limestone	510	1,142	430	923
Riprap and jetty stone	375	730	370	722
Railroad ballast	309	542	266	533
Surface treatment aggregate	119	280	125	304
Soil conditioner	66	156	22	67
Other uses[f]	858	4,775	1,600	5,410
TOTAL[c]	41,480	82,200	40,520	84,970

SOURCE: U.S. Bureau of Mines, special release.

a. Includes limestone, dolomite, and sandstone.
b. Includes sandstone and traprock withheld.
c. Data may not add to totals shown because of independent rounding.
d. Crushed stone only.
e. Includes stone used in chemical stone for alkali work, sugar refining, and dead-burned dolomite (1977).
f. Includes stone used for refractory stone, glass manufacturing, mineral food, paper manufacturing, filter stone, terrazzo and exposed aggregate, and uses indicated by symbol (D).

(D): Withheld to avoid disclosing individual company confidential data. Included with other uses.

TABLE XIII-16. PERMITS TO DRILL, AND OIL AND GAS WELL COMPLETIONS IN MICHIGAN: 1947-1977

Year	Permits issued	Classification of well completions					
		Oil wells	Gas wells	Service wells OBS-GS[a]	Service wells BDW-LPG[b]	Dry holes	Total completions
1947	886	318	43	147	0	387	896
1948	918	371	32	17	0	437	917
1949	999	439	22	73	0	473	1,007
1950	901	336	28	47	0	473	884
1951	744	227	20	43	1	466	757
1952	694	261	30	51	2	370	714
1953	824	258	18	110	1	360	747
1954	573	214	15	2	2	338	571
1955	484	204	13	1	1	291	510
1956	476	196	12	28	0	227	463
1957	461	176	40	35	3	207	461
1958	481	166	20	36	4	227	453
1959	727	257	47	72	4	272	652
1960	904	372	19	79	1	441	912
1961	849	207	57	74	3	376	817
1962	711	148	62	53	4	474	741
1963	704	135	72	56[c]	2	384	650
1964	583	82	48	126	0	376	632
1965	494	53	34	106	0	291	485
1966	430	56	45	11	2	290	404
1967	405	69	38	26[d]	0	287	420
1968	378	70	12	30	6	251	369
1969	379	73	9	26	0	239	347
1970	425	50	16	108	3	211	388
1971	425	83	31	83	13	186	396
1972	423	84	38	62	4	186	374
1973	445	81	47	66	2	173	369
1974	503	134	61	52	2	235	484
1975	653	167	40	38	0	330	571
1976	645	120	57	50	0	333	560
1977	692	136	70	44	6	341	597

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1947 through 1977 (Lansing: annually), pp. 4, 14 (1977).

a. OBS-GS: wells used for gas storage or observation.

b. LPG injection and extraction wells in liquified petroleum gas storage facilities and brine disposal wells.

c. Includes three brine disposal wells, one water injection well, and one geological information test.

d. Includes two water injection wells and one brine disposal well.

TABLE XIII-9. GENERAL STATISTICS FOR ESTABLISHMENTS PRIMARILY ENGAGED IN MINING IN SELECTED MICHIGAN COUNTIES: 1972

County	Number of establishments	Payroll all employees[a] ($1,000,000)	Production workers		Value added in mining[c] ($1,000,000)
			Man-hours[b] (1,000,000)	Wages[a] ($1,000,000)	
Hillsdale county, total	24	1.8	.3	1.1	8.0
Crude petroleum/natural gas	13	.9	.1	.4	5.2
Ingham county, total	19	2.2	.4	1.9	6.3
Oil/gas extraction	11	1.7	.3	1.4	5.5
Isabella county, total	33	3.1	.6	2.3	6.6
Oil/gas extraction	33	3.1	.6	2.3	6.6
Oil/gas field services	23	2.6	.5	2.2	6.0
Jackson county, total	23	1.6	.3	1.1	8.0
Oil/gas extraction	17	1.5	.3	1.0	7.7
Oil/gas field services	8	1.1	.2	1.0	4.7
Oakland county, total	29	4.3	.7	3.6	11.7
Nonmetal, minerals exc. fuels	25	4.3	.7	3.6	11.6
Sand and gravel	20	4.1	.7	3.4	11.3
Osceola county, total	11	.5	.1	.4	1.7
Otsego county, total	11	1.5	.3	1.2	4.3
Oil/gas extraction	10	1.5	.3	1.2	4.3
St. Clair county, total	18	1.1	.2	.8	4.3
Oil/gas extraction	14	.9	.2	.7	4.0
Wayne county, total	25	4.8	.6	3.4	9.4
Nonmetal, minerals exc. fuels	15	4.5	.5	3.1	8.6
TOTAL	409	119.9	18.9	91.9	306.3

SOURCE: Bureau of the Census, Census of Mineral Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), MIC72(2)-3, Table 5.

a. Includes all forms of compensation before deductions for Social Security, income tax, and so forth.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, and so forth, when the employee was absent.

c. Computed by subtracting the cost of supplies, and so forth, from the value of shipments and receipts plus capital expenditures.

TABLE XIII-17. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1976 AND 1977

County	1976 Total well footage		1976 Average well depth[a]	1976 Total wells drilled	1977 Total well footage		1977 Average well depth	1977 Total wells drilled
	Exploratory	Developmental			Exploratory	Developmental		
Allegan	2,550	9,623	3,043	4	20,667	11,985	2,512	13
Alpena	0	0	0	0	3,895	4,263	4,079	2
Antrim	20,469	0	5,825	4	20,624[b]	13,536	6,832	5
Arenac	5,900	0	2,950	2	6,215	0	3,105	3
Barry	7,053	0	3,537	2	0	0	0	0
Bay	8,473	0	2,824	3	3,375	11,016	4,797	3
Benzie	12,017	5,936	5,984	3	22,173	5,976	5,630	5
Berrien	0	0	0	0	0	0	0	0
Branch	11,085	0	3,695	3	14,690	0	3,673	4
Calhoun	51,269	48,097	3,312	30	50,272	31,088	3,206	26
Cass	1,391	4,203	699	8	0	6,265	724	9
Cheboygan	14,148	0	3,537	4	4,368	3,950	4,159	2
Chippewa	0	0	0	0	1,204	0	1,204	1
Clare	0	9,063	4,532	2	3,994	12,245	3,927	5
Crawford	28,662	20,777	7,063	7	15,018	59,246	6,552	12
Eaton	20,672	17,954	3,863	10	30,592	19,214	3,831	13
Gladwin	3,585	0	3,585	1	0	0	0	0
Grand Traverse	301,118	173,720	6,040	79	371,292	254,298	5,847	107
Gratiot	0	0	1,321	3	3,248	0	1,646	4
Hillsdale	11,670	40,359	4,002	13	4,206	85,136	4,061	22
Huron	0	0	0	0	4,900	0	4,900	1
Ingham	14,148	20,814	3,885	9	7,802	12,549	4,070	5
Ionia	5,770	0	2,885	2	0	0	0	0
Isabella	11,677	11,205	3,862	7	7,799	0	3,006	3
Jackson	7,300	0	3,650	2	4,786	4,420	4,603	2

TABLE XIII-17. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1976 AND 1977 (cont.)

County	1976 Total well footage		1976 Average well depth[a]	1976 Total wells drilled	1977 Total well footage		1977 Average well depth	1977 Total wells drilled
	Exploratory	Developmental			Exploratory	Developmental		
Kalamazoo	4,080	0	4,080	1	0	0	0	0
Kalkaska	160,944	94,425	6,442	40	191,159	75,079	6,494	41
Kent	0	0	0	0	0	0	3,988	1
Lake	0	0	3,957	1	0	0	3,910	1
Lapeer	0	13,559	2,260	6	0	0	0	0
Lenawee	0	0	0	0	11,802	0	3,934	3
Livingston	0	0	0	0	31,661	0	5,277	6
Macomb	50,197	29,584	3,324	24	44,456	40,951	3,423	29
Manistee	270,276	197,416	4,541	105	210,527	166,834	4,475	85
Mason	22,439	4,485	4,062	7	13,514	15,189	4,100	7
Mecosta	11,271	3,280	2,941	5	7,551	2,778	1,660	25
Midland	3,951	7,836	3,929	3	4,075	0	4,075	1
Missaukee	5,224	7,755	4,326	3	15,199	17,018	4,037	9
Montcalm	14,190	3,399	2,405	11	3,251	0	1,646	7
Montmorency	14,158	0	4,719	3	16,123	0	5,225	5
Muskegon	0	0	0	0	0	5[c]	0	0
Newaygo	3,445	10,317	1,800	15	0	8,063	2,147	5
Oakland	26,192	0	4,365	6	33,452	7,834	3,753	11
Oceana	574	12,433	3,254	4	1,339	8,744	2,521	4
Ogemaw	20,642	27,699	2,807	30	17,483	21,918	5,582	11
Osceola	0	1,602	3,396	5	7,719	7,056	3,069	5
Otsego	199,788	99,775	5,489	55	142,295	75,552	5,586	39
Ottawa	7,119	1,821	2,980	3	56[b]	0	0	0
Presque Isle	28,280	0	3,142	9	68,370	12,742	3,380	4
Roscommon	0	9,237	4,619	2	4,435	13,145	4,395	4

TABLE XIII-18. STATE OF MICHIGAN REVENUE FROM OIL AND NATURAL GAS PRODUCTION: 1927-1977

Years	Royalty	Rental	Bonus	Application, assignment fees	Total income
1927-1931	$ 85,263	$ 43,822	$ 27,707	$ 1,204	$ 157,996
1932-1936	209,126	205,350	87,211	4,506	506,193
1937-1941	1,302,356	724,330	515,706	7,367	2,549,759
1942-1946	1,645,462	2,021,513	601,065	3,759	4,271,800
1947-1951	1,813,632	2,256,914	1,307,470	4,398	5,382,414
1952-1956	2,727,410	1,989,343	257,187	3,028	4,976,968
1957-1961	1,879,927	769,594	475,841	3,702	3,129,064
1962-1966	1,259,162	1,476,950	409,809	4,982	3,150,903
1967	250,785	199,399	49,192	1,126	500,501
1968	324,934	451,117	1,223,971	2,849	2,002,870
1969	404,709	819,550	894,133	872	2,119,264
1970	429,796	929,596	-132	736	1,359,996
1971	749,815	858,360	1,361	426	1,609,962
1972	944,441	831,057	10,165,151	2,854	11,943,502
1973	1,960,854	1,261,208	3,133	1.658	3,226,852
1974	5,814,636	1,280,109	7,131,732	2,248	14,228,725
1975	9,637,835	1,297,691	514,248	2,603	11,452,378
1976	13,293,209	1,328,660	524,973	616	15,147,458
1977	13,327.908	1,190,620	357,006	3,069	14,878,603

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977 (Lansing: 1978), p. 66.

TABLE XIII-19. NATURAL GAS PLANT OPERATIONS IN MICHIGAN, BY PLANT OR FIELD: 1977

Plant or field	Total input (Mcf.)	Sales to pipe line (Mcf.)	Liquified petroleum gas recovery (gallons)
Albion-Scipio	8,001,954	5,954,087	21,954,407
Aurelius	6,385,189	5,443,577	15,054,989
Beaver Creek	296,428	116,504	76,800
Chester	1,076,540	896,461	3,072,121
Columbus, Section 3	813,246	0	3,159,680
Convis	307,259	228,929	266,910
Hamilton[a]	133,779	57,924	450,282
Kalkaska (Amoco)	35,720,583	33,885,260	38,778,581
Kalkaska (Shell)	72,774,140	61,730,870	239,867,796
Leonard	965,680	739,501	657,600
Loreed	12,034,364	11,682,630	4,241,837
TOTAL	138,509,162	120,735,743	327,581,003

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977 (Lansing: 1978), Table 6.

NOTE: This table is the record of plants which are serving oil field operations, or which are extracting natural gas liquids from designated dry gas sources.

a. Receives and processes oil well gas only.

TABLE XIII-20. PRODUCERS OF MINERALS IN MICHIGAN OTHER THAN OIL AND GAS AND CONSTRUCTION SAND AND GRAVEL, BY COUNTY: 1977

County	Name of producer	Mineral
Allegan	Brenner, Kevin	Marl
	Douglas, Charles E.	Peat
	Pavlak, Emil	Marl
Alpena	National Gypsum Company, Cement Div.	Shale
		Cement
		Limestone, crushed
Antrim	Medusa Cement Company	Shale
Arenac	Arenac Co. Road Commission	Limestone, crushed
	Bay County Road Commission	Limestone, crushed
	Glancey, R.E. Inc.	Limestone, crushed
	Van Deusen Stone Company	Limestone, crushed
Barry	Currier, William	Marl
	Hamilton, Darrell L.	Marl
Bay	Aetna Cement Corp.	Cement
	Monitor Sugar Company	Lime
Berrien	Crosby Marl Company	Marl
	Manley Brothers of Indiana, Inc.	Industrial sand
	Martin-Marietta Cement Company	Industrial sand
Branch	Taylor and Son	Marl
Cass	Pipher's Marl Service	Marl
	Poehlman and Son	Marl
Charlevoix	Medusa Cement Company (Div. of Medusa Corp.)	Cement, Limestone
Cheboygan	Afton Stone Inc.	Limestone, crushed
	Limestone Products Company	Limestone, crushed
Chippewa	Drummond Dolomite, Inc.	Dolomite, crushed
Clinton	Grand Ledge Clay Prod. Company	Shale
Delta	Paquin & Sons, Inc.	Limestone
Dickinson	Felch Quarry Corporation	Marble, crushed
	Hanna Mining Company Groveland Mine	Iron ore
Eaton	Cheney Limestone Company	Limestone, crushed
	Grand Ledge Clay Products	Shale
	Hilu Peat Co.	Peat
Emmet	Penn-Dixie Industries, Inc.	Cement
	Penn-Dixie Industries, Inc.	Limestone
	Penn-Dixie Industries, Inc.	Shale
Gratiot	Total Petroleum, Inc.	Sulfur
	Velsicol Chemical Company	Bromine, Calcium chloride, Calcium-Magnesium chloride, Magnesium compounds, Salt
Hillsdale	Hess, John	Marl

TABLE XIII-20. PRODUCERS OF MINERALS IN MICHIGAN OTHER THAN OIL AND GAS AND CONSTRUCTION SAND AND GRAVEL, BY COUNTY: 1977 (cont.)

County	Name of producer	Mineral
Houghton	Houghton Co. Road Commission	Crushed basalt
Huron	Michigan Sugar Company	Lime
	Wallace Stone Company Div. J.P. Burroughs	Limestone, crushed
Ingham	Wicker's, Inc.	Peat
Iosco	Michigan Gypsum Company	Gypsum
	U.S. Gypsum Company	Gypsum
Iron	Inland Steel Company	Iron ore
Jackson	Jude Sandstone Company	Sandstone
	Napoleon Sandstone Qy.	Sandstone
Kalamazoo	Hayward Dry Marl	Marl
Kent	Georgia-Pacific Corporation	Gypsum
	Grand Rapids Gypsum Company	Gypsum
	Wonderland Peat	Peat
Lapeer	Anderson Peat Company	Peat
	Lester, William	Peat
	Wilkinson Chemical Company	Calcium-magnesium chloride
Mackinac	A.O. Company	Limestone
	Inland Lime & Stone Company	Limestone, crushed
	U.S. Steel Corporation	Dolomite, crushed
Manistee	Hardy Salt Company	Salt, evaporated
	Martin-Marietta Chemical Co. Refractories Division	Magnesium compounds
	Morton Chemical Company	Bromine, Magnesium compounds, Calcium chloride
	Morton Salt Company	Salt, evaporated and brine
Marquette	Cleveland-Cliffs Iron Co.	
	Empire Mine	Iron ore
	Mather Mine	Iron ore
	Republic Mine	Iron ore
	Tilden Mine	Iron ore
	Lindberg, A., & Sons, Inc.	Dolomite, crushed
Mason	Dow Chemical Company, The	Calcium chloride, Magnesium compounds, Lime, Bromine
	Sargent Sand Company	Industrial sand
Mecosta	Gunner's Peat Company	Peat
Midland	Dow Chemical Company, The	Bromine, Bromine compounds, Magnesium compounds, Calcium chloride, Salt brine, Iodine

TABLE XIII-20. PRODUCERS OF MINERALS IN MICHIGAN OTHER THAN OIL AND GAS AND CONSTRUCTION SAND AND GRAVEL, BY COUNTY: 1977 (cont.)

County	Name of producer	Mineral
Monroe	Appleman Farms	Peat
	Dundee Cement Company	Cement, limestone, Clay
	France Stone Company	
	Monroe Quarry	Dolomite, crushed
	Grape Quarry	Dolomite, crushed
	Link, Norman E.	Peat
	Michigan Stone Company	
	Maybee Quarry	Dolomite, crushed
	Ottawa Lake Quarry	Dolomite, crushed
	Ritter, F.W., & Sons, Company	Clay
Muskegon	C.W.C. Casting, Div. of	
	Textron, Inc.	Industrial sand
	Hooker Chemical Company	Salt brine
	McCormick Sand Corporation	Industrial sand
	Nugent Sand Company	Industrial sand
Oakland	Fletcher & Rickard	Peat
	Oxford Peat Company	Peat
Oceana	Sand Products Corp.	Industrial sand
Ontonagon	Copper Range Company	
	White Pine Division	Copper, silver
Ottawa	Construction Agg. Corporation	Industrial sand
	Standard Sand Company	Industrial sand
Presque Isle	Onaway Stone Company	Limestone, dimensional
	Presque Isle Corporation	Limestone, crushed
	U.S. Steel Corporation	Limestone, crushed
Saginaw	Erie Sand Steamship Company	Industrial sand
	Martin-Marietta	Clay
	Michigan Sugar Company	Lime
	Sargent Sand Company	Industrial sand
St. Clair	Diamond Crystal Salt Company	Salt, evaporated
	Morton Salt Company	Salt, evaporated
	Strauchman Industries	Industrial sand
St. Joseph	Kerr Peat and Marl	Marl, Peat
	Quality Peat	Peat
Sanilac	Michigan Peat	Peat
	Michigan Sugar Company	Lime
Schoolcraft	Inland Lime & Stone Company	Dolomite, crushed
	Inwood Stone Products Company	Dolomite, dimensional
	Schoolcraft Co. Road Commission	Dolomite, crushed
Shiawassee	Al-Par Peat Company	Peat
	Michigan Brick, Inc.	Shale
	Scenic Lakes, Inc.	Peat
Tuscola	Great Lakes Minerals Company	Industrial sand
	Michigan Sugar Company	Lime
	Sargent Sand Company	Industrial sand

TABLE XIII-20. PRODUCERS OF MINERALS IN MICHIGAN OTHER THAN OIL AND GAS AND CONSTRUCTION SAND AND GRAVEL, BY COUNTY: 1977 (cont.)

County	Name of producer	Mineral
Van Buren	Harris Trucking, Inc.	Industrial sand
Wayne	Amcord Cement Company	Cement, Clay
	BASF Wyandotte Corporation	Lime, Salt brine
	Detroit Lime Company	Lime
	International Salt Co., Inc.	Rock salt
	Levy Company	Cement
	Marathon Oil Company	Sulfur
	Marblehead Lime Company	Lime
	Michigan Foundation Qy. Company	Limestone, crushed
	Ottawa Silica Company	Sandstone, crushed (Industrial-silica sand)
	Pennwalt Corporation	Salt brine
	Rockwood Stone Company, Inc.	Dolomite, crushed
	Wyandotte Cement, Inc.	Cement
Wexford	Wexford Sand Company	Industrial sand

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers, 1977 (Lansing: 1978), pp. 76-92.

There have been two censuses of construction industries since 1939, one for 1967 and another for 1972. Current law authorizes the U. S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at five-year intervals covering the years ending in "2" and "7." These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: those primarily engaged in contract construction (general contractors or special trade contractors or special trade contractors such as plumbing and electrical work), in construction for sales on their own account (operative builders), or in subdividing real property into lots (subdividers and developers, except cemeteries).

A construction establishment is a place of business from which the business of estimating, bidding, scheduling, purchasing, supervision, and so forth, is conducted irrespective of the location or locations of construction sites, which are not separate establishments in and of themselves. A construction concern engaging in two or more distinctly different lines of economic activity, such as wholesaling or retailing, reports each activity separately, provided that each activity is of substantial size and that separate records are available or can be estimated for the separate activities.

Construction firms are divided into those with payroll and those without. The former were queried in a census survey whether they were large, medium, or fell in a sample of small establishments. Nonemployers were not required to complete a Census of Construction Industries questionnaire; instead, the Census Bureau obtained relevant information from administrative records of other agencies.

Current data on construction activity are available in two Census Bureau publications, Construction Reports and Construction Review. Demolition statistics also have been published in Construction Reports since 1969. The F. W. Dodge Company also reports on construction activity.

Union scales for construction crafts are reported annually in a bulletin published by the United States Bureau of Labor Statistics.

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TABLE XIV-1. COMPARATIVE STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1967 AND 1972

Item	1967	1972
Number of establishments with payroll:	14,205	16,404
With 1 - 9 employees	11,538	13,537
With 10 - 49 employees	2,238	2,489
With 50 - 99 employees	284	253
With 100 employees or more	145	125
Proprietors and working partners	11,086	10,423
Number of employees:		
Average	125,853	130,828
Mid-March	104,985	107,609
Mid-May	124,637	130,655
Mid-August	140,582	146,165
Mid-November	127,769	131,886
Payroll, entire year ($000)	1,061,479	1,527,560
Construction workers:		
Average	108,637	106,685
Mid-March	88,229	84,603
Mid-May	107,621	106,659
Mid-August	122,945	121,437
Mid-November	110,396	107,387
Payroll, entire year ($000)	875,026	1,220,662
Total selected payments ($000)	2,338,513	3,231,495
Materials, components, and supplies ($000)	1,179,026	1,654,576
Construction work subcontracted to others ($000)	1,160,336	1,576,919
Total receipts ($000)	4,232,336	5,961,230
Total construction receipts ($000)	4,127,817	5,746,253
Receipts for work subcontracted in from others ($000)	865,871	1,278,948
Other business receipts and land receipts ($000)	103,094	214,977
Net construction receipts ($000)	2,967,588	4,169,334
Value added in construction ($000)	1,850,119	2,615,296

SOURCE: Bureau of the Census, U.S. Census of Construction Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), CC72-A-3, Table 3.

TABLE XIII-17. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1976 AND 1977 (cont.)

County	1976 Total well footage		Average well depth[a]	Total wells drilled	1977 Total well footage		Average well depth	Total wells drilled
	Exploratory	Developmental			Exploratory	Developmental		
Saginaw	0	0	0	0	0	0	0	0
Sanilac	13,341	0	6,671	2	0	0	0	0
Shiawassee	0	0	0	0	0	0	0	
St. Clair	21,966	0	2,746	8	12,432	6,149	2,956	7
St. Joseph	0	0	0	0	11,342	0	3,782	3
Tuscola	0	0	0	0	0	21,654	3,609	6
Van Buren	4,213	1,126	1,780	3	0	2,386	1,193	2
Washtenaw	0	0	0	0	0	0	0	0
Wexford	25,786	26,030	5,757	13	15,448	30,145	5,066	9
TOTAL	1,448,933	913,530		560	1,474,814	1,068,429		597

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1976 and 1977 (Lansing: annually), Table 1 (1977).

a. In some cases average well depth includes facility footage credited to old wells drilled deeper as well as exploratory footage and/or developmental footage.

b. Includes some exploratory footage credited to old wells drilled deeper.

c. Includes some development footage credited to old wells drilled deeper.

TABLE XIV-2. SUMMARY STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1972

Industry or industry group	Number of establishments	Number of proprietors and working partners	All employees[a]	Total receipts ($000)
	All establishments			
General building contractors and operative builders	8,175	6,003	32,601	$ 2,593,066
Heavy construction general contractors	1,582	1,102	20,919	1,044,247
Special trade contractors	24,844	21,438	76,106	2,557,706
Plumbing, heating, and air conditioning	3,257	2,387	15,658	668,472
Electrical work	2,561	1,816	12,207	411,860
Subdividers and developers, N.E.C.	427	161	1,202	109,426
TOTAL	35,102	28,778	130,828	6,305,755
	Establishments with payroll			
General building contractors and operative builders	4,906	2,874	32,601	$ 2,457,308
Heavy construction general contractors	819	347	20,919	1,025,839
Special trade contractors	10,524	7,171	76,106	2,388,960
Plumbing, heating, and air conditioning	1,960	1,106	15,658	645,496
Electrical work	1,467	802	12,207	398,912
Subdividers and developers, N.E.C.	155	31	1,202	89,123
TOTAL	16,404	10,423	130,828	5,961,230

SOURCE: Bureau of the Census, U.S. Census of Construction Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), CC72-A-3, Table 1.

a. Average for the four payroll periods ending nearest the 15th of March, May, August, and November.

N.E.C.: not elsewhere classified.

TABLE XIV-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1972 (cont.)

Industry group or industry	Number of establishments	Employment[a]		Yearly payroll[b]		Receipts during year[c]	Value added in construction[d]
		Construction workers	Total	Construction workers	Total		
Masonry, plastering, tile setting							
Masonry, stone setting, other stonework	1,021	5,620	6,098	51,853	58,541	149,627	97,935
Plastering, drywall, insulation work	491	4,583	5,152	53,060	60,818	149,528	91,415
Terrazzo, tile, marble, and mosaic work	131	542	676	6,359	7,680	21,476	13,867
Carpentering and flooring,							
Carpentering	773	5,172	5,667	52,436	57,847	115,074	83,974
Floor laying and other floorwork	301	996	1,237	10,092	12,965	38,318	24,216
Roofing, sheet metal work	753	5,453	6,403	53,246	66,640	178,487	110,249
Concrete work	905	5,153	5,743	48,105	55,700	177,865	104,556
Water well drilling	203	587	665	4,572	5,381	24,996	15,572
Miscellaneous, special							
Structural steel erection	121	1,631	1,807	20,195	22,949	51,525	38,412
Glass and glazing work	101	521	789	5,841	8,710	27,347	14,883
Excavating, foundation work	731	4,068	4,738	41,813	51,347	161,600	109,020
Wrecking, demolition work	62	299	369	2,341	3,165	15,215	13,430
Installing bldg. equipment, N.E.C.	74	1,600	1,943	24,486	30,284	83,350	65,440
Special trade contractors, N.E.C.	605	2,415	3,126	20,241	26,690	77,054	(D)
Subdividers and developers, N.E.C.	155	123	1,202	1,185	9,832	89,123	(D)

TABLE XIV-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1972 (cont.)

Industry group or industry	Number of establishments	Employment[a]		Yearly payroll[b]		Receipts during year[c]	Value added in construction[d]
		Construction workers	Total	Construction workers	Total		
TOTAL	16,404	106,685	130,828	1,220,662	1,527,569	5,961,230	2,615,296

SOURCE: Bureau of the Census, U.S. Census of Construction Industries, 1972, Area Series, East North Central States (Washington, D.C.: 1975), CC72-A-3, Table 2.

a. Average for the four payroll periods ended nearest the 15th of March, May, August, and November.

b. In thousands of dollars; includes all forms of cash compensation before deducations for Social Security, income tax, and so forth.

c. In thousands of dollars; includes construction and other receipts.

d. Total receipts less payments for construction work subcontracted to others and payments for materials, components, and supplies.

(D): Withheld to avoid disclosing figures for individual companies.

N.E.C.: not elsewhere classified.

TABLE XIV-4. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in contract construction			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Kalkaska	16.01	4,830	19.89	7,241
Midland	10.29	48,332	17.84	97,979
Montmorency	12.04	1,764	13.84	2,372
Benzie	10.26	2,782	12.18	3,847
Cheboygan	11.60	6,422	12.02	7,475
Leelanau	11.48	2,567	11.59	3,479
Iron	11.45	4,319	10.06	4,158
Oscoda	6.82	757	9.83	1,216
Grand Traverse	9.38	22,164	9.76	26,691
Dickinson	10.11	11,558	9.50	12,202
Van Buren	8.79	14,217	9.17	16,507
Emmet	9.01	7,844	8.95	8,820
Houghton	7.28	7,102	8.74	9,395
St. Clair	5.18	22,439	8.50	42,009
Missaukee	8.35	1,383	7.71	1,419
Gladwin	6.43	1,844	7.37	2,405
Livingston	6.24	10,645	7.29	14,460
Clinton	6.63	5,849	7.29	7,441
Chippewa	4.82	6,036	7.23	8,763
Mason	6.65	5,594	7.17	6,730
Oakland	7.00	382,447	7.13	466,983
Ogemaw	7.28	2,615	7.00	2,769
Otsego	6.18	3,419	6.71	4,303
Ottawa	5.17	28,815	6.65	43,891
Antrim	5.68	2,114	6.54	2,841
Bay	4.64	21,884	6.29	33,835
Eaton	5.42	7,822	6.25	10,322
Clare	5.00	2,076	6.23	2,942
Marquette	4.64	15,039	6.14	21,220
Menominee	5.46	3,998	6.07	4,910
Branch	4.56	6,976	5.75	10,377
Kent	5.16	121,242	5.58	149,518
Alpena	4.89	6,294	5.47	7,903
Baraga	6.13	1,446	5.44	1,401
Charlevoix	5.33	3,395	5.43	4,021

TABLE XIV-4. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in contract construction			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Monroe	4.67	16,977	5.40	23,051
Muskegon	4.72	33,790	5.36	42,321
Kalamazoo	5.20	61,235	5.29	70,159
Roscommon	4.45	1,331	5.27	1,830
Lake	3.76	431	4.77	598
Macomb	4.63	150,597	4.77	184,430
Berrien	4.14	32,813	4.68	42,356
Isabella	6.66	10,562	4.49	7,900
Iosco	3.55	3,678	4.29	4,601
Delta	3.66	5,366	4.23	6,540
Manistee	4.04	2,980	4.18	3,574
Mecosta	3.94	3,199	4.16	3,713
Crawford	3.13	804	4.16	1,187
Jackson	4.18	29,703	4.07	32,360
Ingham	3.85	75,903	4.03	89,812
Allegan	6.69	6,754	4.03	8,514
Alger	3.40	810	3.99	1,036
Lapeer	3.73	6,288	3.96	7,470
Shiawassee	3.38	6,247	3.93	7,945
Tuscola	3.78	5,794	3.92	6,683
Wexford	3.84	3,279	3.81	3,899
Montcalm	3.26	4,833	3.78	6,396
Calhoun	3.65	29,372	3.67	32,316
Barry	2.85	3,008	3.66	4,029
Newaygo	3.20	2,433	3.62	2,962
Huron	3.41	4,217	3.60	4,917
Saginaw	3.47	46,517	3.57	54,657
Presque Isle	2.70	983	3.50	1,392
Oceana	3.19	1,220	3.49	1,590
Schoolcraft	3.45	905	3.41	987
St. Joseph	3.47	7,510	3.39	8,212
Osceola	2.90	1,390	3.31	1,809
Wayne	3.11	531,496	3.26	622,195
Hillsdale	2.92	3,862	3.24	4,948
Gratiot	3.00	4,867	3.24	5,708

TABLE XIV-4. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in contract construction			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Cass	2.42	2,984	3.21	4,465
Sanilac	3.22	3,735	3.15	4,711
Ionia	3.35	4,586	3.04	4,793
Genesee	2.65	79,051	3.00	104,494
Washtenaw	4.12	72,779	2.84	58,287
Arenac	2.25	721	2.67	994
Luce	2.51	704	2.64	819
Lenawee	2.57	9,203	2.60	10,508
Ontonagon	(a)	(a)	1.73	852
Alcona	(a)	(a)	(a)	(a)
Mackinac	(a)	(a)	(a)	(a)
Gogebic	(a)	(a)	(a)	(a)
Keweenaw	(a)	(a)	(a)	(a)
Michigan	4.28	2,080,649	4.60	2,553,625
United States	5.82	61,029,000	5.98	69,671,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XIV-5. AVERAGE UNION SCALES FOR SELECTED CRAFTS OR JOBS IN THE BUILDING TRADES IN DETROIT AND GRAND RAPIDS: 1 JULY 1967, 1971, AND 1977

(Dollars per hour)

Craft or job	Detroit			Grand Rapids		
	1967	1971	1977	1967	1971	1977
Journeymen						
Asbestos workers	5.93	8.83	10.90	4.50	7.95	9.46
Boilermakers	5.50	8.18	11.17	n.a.	n.a.	n.a.
Bricklayers	5.44	8.23	11.56	5.00	7.15	8.55
Carpenters	5.06	8.06	11.11	4.45	6.55	8.95
Cement finishers	5.08	7.44	10.55	4.46	6.61	7.74
Electricians (inside wiremen)	5.40	8.70	10.92	5.32	7.62	9.75
Elevator constructors	5.08	9.22	12.48	4.87	7.18	9.90
Glaziers	4.65	7.85	10.31	4.15	6.00	8.35
Lathers	5.26	8.53	10.65	4.92	7.29	8.20
Marble setters	5.43	9.54	11.32	4.60	7.15	7.85
Mosaic/terrazzo workers	5.32	8.17	10.49	4.60	6.50	7.85
Painters	4.70	7.75	10.70	4.40	6.10	7.95
Paperhangers	n.a.	7.75	10.70	4.65	6.35	8.20
Pipefitters	5.78	7.97	10.55	5.64	8.14	10.32
Plasterers	5.32	8.64	12.25	4.64	6.97	9.08
Plumbers	5.25	8.13	10.75	5.64	8.14	10.32
Rodmen	5.36	9.26	10.10	5.50	7.60	9.70
Roofers, composition	5.17	8.07	10.81	4.40	5.45	7.25
Roofers, slate and tile	5.67	8.82	11.81	4.55	5.70	7.50
Sheet-metal workers	5.14[a]	7.88[a]	10.34[a]	4.67	7.00	9.55
Stonemasons	5.44	8.23	11.56	5.00	7.15	8.55
Structural-iron workers	5.50	8.00	10.65	5.75	7.65	9.70
Tile layers	5.12	8.46	10.88	4.60	6.50	7.85
Helpers and laborers						
Bricklayers' tenders	4.30	6.55	8.93	3.56	5.01	6.56
Building laborers	4.25	6.45	8.93	3.56	5.01	6.41
Elevator constructors' helpers	3.56	6.45	8.73	3.41	5.03	6.93
Plasterers' laborers	4.05	7.78	10.18	3.71	5.16	6.56
Marble setters' helpers	4.35	8.18	9.27	3.79	5.61	n.a.
Terrazzo workers' helpers	4.41	7.61	10.55	4.14	5.61	7.06
Tile layers' helpers	4.01	7.60	9.27	3.79	5.61	7.06

SOURCE: Bureau of Labor Statistics, Union Wages and Hours: Building Trades, Bulletins No. 2012 (1977 data), No. 1747 (1971 data), and No. 1590 (1967 data) (Washington, D.C.: annually).

a. A simple average of agreements A and B.

TABLE XIV-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1972

Industry group or industry	Number of establishments	Employment[a]		Yearly payroll[b]		Receipts during year[c]	Value added in construction[d]
		Construction workers	Total	Construction workers	Total		
General contractors, Single family houses	3,394	9,920	14,389	74,798	120,584	993,825	209,089
General contractors, Residential bldgs., other than single-family	253	1,630	2,145	16,980	22,807	170,345	38,295
General contractors, Industrial bldgs., warehouses	399	4,888	6,182	60,549	78,798	441,170	116,681
Nonresidential bldgs., N.E.C.	860	7,480	9,885	86,226	121,264	851,968	217,533
Heavy construction, Highway and street	279	6,634	7,739	97,963	114,898	431,015	226,388
Heavy construction, except highway							
Bridge, tunnel, and elevated highway	27	632	731	9,601	11,694	40,377	19,493
Water, sewer, and utility	310	6,358	7,267	84,354	100,880	335,950	190,092
Heavy construction, N.E.C.	203	4,423	5,182	67,839	79,873	218,497	141,513
Special trade, Plumbing, heating, air conditioning	1,960	12,406	15,658	160,121	200,489	645,496	310,252
Painting, paper hanging, decorating	825	3,545	3,828	32,918	36,301	74,090	59,764
Electrical work	1,467	10,006	12,207	133,489	161,432	398,912	253,207

TABLE XIV-6. NUMBER AND VALUATION OF NEW HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN: 1970-1978

Year		Privately owned					Publicly owned (contract awards)
		In structures with					
		1 unit	2 units	3 and 4 units	5 units or more	Total	
1970	No. of housing units	32,041	922	776	17,009	50,748	311
	Valuation ($000)	610,322	11,055	11,193	180,751	813,321	5,315
1971	No. of housing units	44,280	1,108	2,097	24,436	71,921	927
	Valuation ($000)	939,308	14,906	28,432	309,114	1,291,760	12,840
1972	No. of housing units	42,252	1,434	2,414	29,947	76,047	550
	Valuation ($000)	968,198	23,545	38,528	377,425	1,407,696	10,908
1973	No. of housing units	37,622	1,232	2,288	30,116	71,258	—
	Valuation ($000)	935,621	19,930	39,065	378,694	1,373,310	—
1974	No. of housing units	26,793	864	728	15,806	44,191	100
	Valuation ($000)	714,199	13,759	11,192	227,254	966,405	2,360
1975	No. of housing units	26,885	598	524	8,762	36,769	211
	Valuation ($000)	792,694	10,550	7,633	130,582	941,459	3,903
1976	No. of housing units	33,093	906	729	11,167	45,893	--
	Valuation ($000)	1,059,841	17,059	13,592	173,427	1,263,919	—
1977	No. of housing units	42,265	856	1,000	14,936	59,057	--
	Valuation ($000)	1,516,811	17,530	21,786	256,438	1,812,567	--
1978	No. of housing units	43,323	1,052	1,223	15,412	61,010	--
	Valuation ($000)	1,758,970	23,820	27,362	294,264	2,104,418	--

SOURCE: Bureau of the Census, Construction Reports, Permits—Housing Authorized by Building Permits and Public Contracts, 1970 through 1976 (Washington, D.C.: annually), Table 2 (1976); and Bureau of the Census, special release.

TABLE XIV-7. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1971-1978

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1971	1,804	36	147	1,431	3,418
	1972	1,474	90	48	3,603	5,215
	1973	1,081	30	119	1,445	2,675
	1974	740	74	4	1,021	1,839
	1975	556	8	0	69	633
	1976	821	4	0	280	1,105
	1977	1,266	18	0	386	1,670
	1978	1,460	16	0	914	2,390
Battle Creek	1971	547	0	12	321	880
	1972	430	6	0	158	594
	1973	627	2	20	779	1,428
	1974	424	6	0	61	491
	1975	418	6	0	230	654
	1976	651	10	0	300	961
	1977	554	4	20	267	845
	1978	534	2	44	201	781
Bay City	1971	735	4	0	0	739
	1972	587	4	28	214	833
	1973	615	8	24	633	1,280
	1974	445	2	4	363	814
	1975	403	6	0	72	481
	1976	458	2	12	350	822
	1977	525	2	0	0	527
	1978	494	6	0	0	500
Detroit	1971	19,377	102	843	15,278	35,600
	1972	14,467	226	1,397	13,726	29,816
	1973	14,946	380	1,287	16,010	32,433
	1974	9,735	160	259	7,924	18,078
	1975	9,964	74	165	3,801	13,004
	1976	13,070	80	300	4,764	18,214
	1977	18,239	106	471	5,895	24,711
	1978	18,625	100	628	7,056	26,409
Flint	1971	3,372	16	371	1,506	5,265
	1972	2,820	36	215	1,206	4,277
	1973	2,349	32	140	2,137	4,658
	1974	1,450	30	127	341	1,948
	1975	1,206	4	11	264	1,485
	1976	1,447	8	8	398	1,861
	1977	2,067	8	60	1,147	3,282
	1978	2,192	12	19	1,054	3,277
Grand Rapids	1971	3,019	204	190	1,618	5,031
	1972	3,080	202	212	2,277	5,771
	1973	2,625	146	63	2,439	5,273
	1974	2,209	82	40	1,229	3,560
	1975	2,141	184	96	1,006	3,427
	1976	2,325	274	65	1,147	3,811
	1977	2,775	280	58	1,450	4,563
	1978	3,106	438	115	2,173	5,832

TABLE XIV-7. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1971-1978 (cont.)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Jackson	1971	580	42	12	199	833
	1972	581	20	27	348	976
	1973	656	20	26	164	866
	1974	627	8	11	24	670
	1975	427	4	10	449	890
	1976	612	36	18	250	916
	1977	544	0	3	630	1,177
	1978	529	6	0	128	663
Kalamazoo-Portage	1971	713	82	143	1,096	2,034
	1972	749	38	42	1,957	2,786
	1973	1,089	58	88	418	1,653
	1974	692	82	48	476	1,298
	1975	823	34	43	755	1,655
	1976	937	34	75	926	1,972
	1977	1,271	18	154	1,197	2,640
	1978	1,117	22	111	424	1,674
Lansing-East Lansing	1971	2,204	166	100	1,165	3,635
	1972	2,717	312	28	2,270	5,327
	1973	2,659	254	126	2,646	5,685
	1974	1,486	132	20	805	2,443
	1975	1,266	84	31	484	1,865
	1976	1,620	136	55	698	2,509
	1977	2,144	100	78	1,478	3,800
	1978	2,013	138	130	1,174	3,455
Muskegon-Muskegon Heights-Norton Shores	1971	682	2	0	64	748
	1972	677	6	8	409	1,100
	1973	577	10	25	297	909
	1974	470	22	12	188	692
	1975	639	0	0	0	639
	1976	662	36	24	441	1,163
	1977	747	6	0	120	873
	1978	852	12	0	309	1,173
Saginaw	1971	1,366	140	68	341	1,879
	1972	1,377	82	15	1,115	2,589
	1973	1,052	44	25	1,036	2,157
	1974	793	32	31	318	1,174
	1975	660	66	32	127	885
	1976	776	122	8	135	1,041
	1977	875	112	36	320	1,343
	1978	955	104	16	176	1,251

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1971 through 1976 (Washington, D.C.: annually), Table 3 (1977); and Bureau of the Census, special release.

TABLE XIV-8. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1971-1978

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1971	40,630	541	1,819	17,681	60,671
	1972	37,535	1,927	622	33,698	73,782
	1973	29,612	440	2,371	18,609	51,031
	1974	24,242	1,758	50	13,474	39,523
	1975	20,165	154	0	1,086	21,405
	1976	28,613	58	0	3,507	32,179
	1977	48,267	357	0	7,125	55,749
	1978	65,889	391	0	14,960	81,241
Battle Creek	1971	9,478	0	151	2,607	12,235
	1972	9,104	162	0	1,988	11,254
	1973	12,998	21	255	5,635	18,910
	1974	9,307	96	67	762	10,232
	1975	10,436	118	0	1,706	12,259
	1976	18,812	218	0	3,140	22,170
	1977	17,257	85	364	3,112	20,818
	1978	17,561	72	1,981	2,230	21,843
Bay City	1971	12,952	38	0	0	12,990
	1972	11,316	60	317	2,870	14,563
	1973	12,238	112	530	7,088	19,968
	1974	9,951	28	50	4,486	14,516
	1975	9,342	123	0	922	10,387
	1976	12,122	30	185	3,299	15,636
	1977	16,049	25	0	0	16,074
	1978	17,251	75	0	0	17,326
Detroit	1971	448,296	1,475	12,340	214,114	676,224
	1972	372,086	5,415	24,420	199,656	601,577
	1973	419,881	6,301	25,442	229,613	681,237
	1974	302,828	2,423	4,709	144,601	454,560
	1975	334,864	1,236	2,471	72,278	420,849
	1976	487,264	1,390	6,662	90,723	586,039
	1977	754,541	2,261	11,286	127,298	895,387
	1978	877,358	2,337	14,434	156,342	1,050,469
Flint	1971	62,063	239	5,027	14,690	82,018
	1972	58,538	392	2,992	13,361	75,283
	1973	56,210	561	1,922	21,986	80,678
	1974	36,359	431	1,672	3,245	41,708
	1975	33,005	64	194	2,667	35,929
	1976	40,549	248	96	6,409	47,302
	1977	65,605	283	1,169	12,955	80,011
	1978	80,283	259	444	16,238	97,224
Grand Rapids	1971	61,592	2,462	1,819	14,898	80,771
	1972	69,931	2,535	3,093	27,009	102,568
	1973	68,698	2,075	1,072	25,985	97,830
	1974	61,648	1,255	552	13,779	77,234
	1975	63,566	3,144	1,293	10,231	78,233
	1976	74,150	4,848	1,129	14,664	94,791
	1977	99,326	5,432	905	17,443	123,106
	1978	123,887	9,754	2,325	33,386	169,352

TABLE XIV-8. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1971-1978 (cont.)

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Jackson	1971	9,847	460	111	1,785	12,203
	1972	10,833	217	271	3,168	14,489
	1973	13,393	174	358	1,789	15,715
	1974	13,624	102	145	270	14,140
	1975	9,592	80	167	5,569	15,408
	1976	14,511	476	272	3,738	18,997
	1977	15,648	0	60	7,515	23,223
	1978	17,560	114	0	1,554	19,228
Kalamazoo-Portage	1971	16,981	1,356	2,424	10,407	31,168
	1972	19,356	624	711	18,608	39,298
	1973	25,868	1,196	1,430	4,618	33,111
	1974	19,742	1,150	822	5,747	27,460
	1975	27,097	632	729	8,482	36,940
	1976	32,420	708	1,342	13,346	47,816
	1977	45,280	472	2,762	20,318	68,831
	1978	47,307	403	1,978	6,851	56,540
Lansing-East Lansing	1971	47,430	2,908	1,656	14,277	66,271
	1972	62,042	5,757	278	25,854	93,930
	1973	62,760	4,753	2,080	28,006	97,599
	1974	39,002	2,500	343	11,882	53,726
	1975	38,452	1,705	789	5,762	46,709
	1976	52,967	3,563	1,222	7,996	65,749
	1977	74,916	2,862	2,668	22,066	102,513
	1978	80,384	4,177	3,348	18,593	106,503
Muskegon-Muskegon Heights-Norton Shores	1971	11,911	15	0	775	12,701
	1972	12,620	80	101	4,142	16,942
	1973	10,851	128	392	1,970	13,343
	1974	10,290	243	227	1,036	11,796
	1975	15,146	0	0	0	15,146
	1976	16,471	431	360	4,745	22,008
	1977	21,762	95	0	1,000	22,857
	1978	26,935	238	0	5,768	32,940
Saginaw	1971	27,436	1,326	693	3,623	33,078
	1972	29,708	1,040	123	11,859	42,730
	1973	25,433	514	373	11,473	37,792
	1974	20,619	414	365	3,507	24,905
	1975	19,327	1,204	386	1,595	22,511
	1976	24,027	2,081	108	1,330	27,546
	1977	29,251	1,927	293	6,039	37,510
	1978	35,896	1,946	299	2,139	40,280

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1971 through 1976 (Washington, D.C.: annually), Table 3 (1977); and Bureau of the Census, special release.

TABLE XIV-9. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS, INSIDE AND OUTSIDE OF CENTRAL CITIES: 1978

SMSA	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor					
Ann Arbor	353	6	0	363	772
Outside central city	1,107	10	0	551	1,668
Battle Creek					
Battle Creek	14	2	0	0	16
Outside central city	520	0	44	201	765
Bay City					
Bay City	42	0	0	0	42
Outside central city	452	6	0	0	458
Detroit					
Detroit	122	0	8	505	635
Outside central city	18,503	100	620	6,551	25,774
Flint					
Flint	26	0	0	478	504
Outside central city	2,166	12	19	576	2,773
Grand Rapids					
Grand Rapids	201	48	0	270	519
Outside central city	2,905	390	115	1,903	5,313
Jackson					
Jackson	2	0	0	0	2
Outside central city	527	6	0	128	661
Kalamazoo-Portage					
Kalamazoo	92	0	0	92	184
Portage	132	0	24	284	440
Outside central cities	893	22	87	48	1,050
Lansing-East Lansing					
Lansing	198	26	8	148	380
East Lansing	69	22	16	65	172
Outside central cities	1,746	90	106	961	2,903
Muskegon-Muskegon Heights-Norton Shores					
Muskegon	6	0	0	163	169
Muskegon Heights	2	0	0	8	10
Norton Shores	117	4	0	108	229
Outside central cities	727	8	0	30	765
Saginaw					
Saginaw	13	10	16	41	80
Outside central city	942	94	0	135	1,171

SOURCE: Bureau of the Census, special release.

TABLE XIV-10. ANNUAL CONSTRUCTION CONTRACT AWARDS IN MICHIGAN, 1963-1978, AND THE UNITED STATES, 1977 AND 1978

(In thousands of dollars)

Year	Non-residential	Residential	Total building	Public works and utilities	Total construction
			Michigan		
1963	558,207	658,930	1,217,137	267,038	1,484,175
1964	788,533	741,977	1,530,510	317,401	1,848,411
1965	766,258	1,038,356	1,814,614	465,073	2,279,686
1966	930,000	835,030	1,765,100	333,200	2,098,330
1967	946,513	1,020,000	1,966,513	357,000	2,323,513
1968	912,849	1,029,581	1,942,430	407,537	2,349,967
1969	962,697	891,531	1,854,228	874,715	2,728,943
1970	955,592	942,760	1,898,352	1,052,245	2,950,597
1971	874,058	1,319,978	2,194,036	840,719	3,034,755
1972	1,010,891	1,596,633	2,607,524	842,780	3,450,304
1973	1,206,481	1,856,354	3,062,835	1,299,276	4,362,111
1974	1,355,623	1,314,147	2,669,770	791,628	3,461,398
1975	951,139	1,089,145	2,040,284	1,146,796	3,187,080
1976	1,115,512	1,470,420	2,585,932	590,478	3,176,410
1977	1,525,733	2,144,489	3,670,222	604,463	4,274,685
1978	1,723,365	2,460,295	4,183,660	1,771,552	5,955,212
			United States		
1977	35,085,549	62,017,150	97,102,699	42,620,011	139,702,710
1978	44,372,869	74,530,704	118,903,573	39,534,258	158,437,831

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, special release.

TABLE XIV-11. NONRESIDENTIAL AND RESIDENTIAL BUILDING AWARDS IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978

(In thousands of dollars)

Area	Nonresidential		Residential		Total	
	1977	1978	1977	1978	1977	1978
Ann Arbor	83,720	60,344	70,978	82,484	154,698	142,828
Battle Creek	18,067	39,348	26,132	29,838	44,199	69,186
Bay City	18,290	13,375	20,955	18,566	39,245	31,941
Detroit	807,096	913,485	1,003,919	1,125,079	1,811,015	2,038,564
Flint	75,074	74,606	89,942	103,125	165,016	177,731
Grand Rapids	140,804	170,556	153,874	106,975	294,678	377,531
Jackson	8,061	15,013	21,443	24,498	29,504	39,511
Kalamazoo-Portage	33,615	35,570	82,912	80,367	116,527	115,937
Lansing-East Lansing	67,729	91,721	112,491	123,034	180,220	214,755
Muskegon-Muskegon Heights-Norton Shores	23,255	23,556	30,893	38,371	54,148	61,927
Saginaw	35,355	36,811	47,655	45,649	83,010	82,460
Michigan	1,525,733	1,723,365	2,244,489	2,460,295	3,670,222	4,183,660
United States	35,085,549	44,372,869	62,017,150	74,530,704	97,102,699	118,903,573

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, news release.

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Alcona	1977	142	3,376	0	0	0	0	1	20
	1978	163	4,211	3	124	6	572	3	130
Alger	1977	81	2,495	0	0	0	0	9	1,090
	1978	75	2,632	0	0	0	0	10	1,283
Allegan	1977	435	11,659	10	830	4	329	9	704
	1978	372	12,185	22	1,412	3	292	11	793
Alpena	1977	281	6,975	2	77	0	0	9	623
	1978	301	7,675	4	362	3	306	8	923
Antrim	1977	204	6,457	3	49	0	0	7	191
	1978	250	8,518	5	273	4	171	9	442
Arenac	1977	63	1,370	4	386	3	188	8	73
	1978	97	2,184	0	0	2	86	3	212
Baraga	1977	49	972	2	10	0	0	1	18
	1978	31	780	1	24	0	0	4	194
Barry	1977	196	4,624	4	174	3	190	2	205
	1978	277	5,823	3	133	1	36	1	12
Bay	1977	527	16,074	9	1,574	11	897	18	1,967
	1978	500	17,326	7	848	10	767	22	2,736
Benzie	1977	147	3,877	0	0	1	80	3	420
	1978	140	3,808	1	129	0	0	3	60
Berrien	1977	825	21,572	30	2,435	7	1,242	36	3,620
	1978	585	19,454	44	4,373	12	1,756	24	11,272
Branch	1977	199	4,627	7	474	1	125	15	339
	1978	175	4,330	17	2,049	2	195	6	296
Calhoun	1977	649	16,194	24	2,406	10	1,814	13	699
	1978	504	16,020	28	8,463	7	1,279	35	1,396
Cass	1977	246	7,121	6	369	6	549	5	197
	1978	218	7,256	12	2,121	3	106	4	45
Charlevoix	1977	184	5,124	5	469	1	75	1	700
	1978	175	5,942	1	54	0	0	12	7,219
Cheboygan	1977	187	5,635	0	0	0	0	3	392
	1978	198	7,175	1	800	0	0	3	1,713
Chippewa	1977	33	754	2	114	1	100	1	592
	1978	36	921	1	146	0	0	1	180

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Clare	1977	149	4,852	0	0	1	600	4	502
	1978	239	6,418	0	0	0	0	4	493
Clinton	1977	337	10,085	3	355	2	343	4	812
	1978	281	10,479	5	198	2	375	4	620
Crawford	1977	165	3,807	1	25	2	225	10	83
	1978	133	3,036	0	0	1	168	8	235
Delta	1977	473	11,576	7	405	2	237	5	206
	1978	247	7,479	5	1,294	6	1,767	9	1,130
Dickinson	1977	102	3,401	1	30	0	0	1	243
	1978	48	1,914	2	1,512	1	99	6	374
Eaton	1977	1,161	33,086	5	4,160	6	1,090	10	415
	1978	1,277	37,401	12	8,571	6	430	16	6,314
Emmet	1977	60	1,625	1	170	3	4,152	5	1,626
	1978	175	4,893	1	9,000	0	0	2	140
Genesee	1977	2,993	70,109	33	14,055	49	10,417	82	11,883
	1978	2,971	86,110	35	9,023	40	7,721	66	8,159
Gladwin	1977	238	7,681	0	0	0	0	0	0
	1978	217	7,911	2	97	3	475	5	313
Gogebic	1977	78	2,036	0	0	1	158	0	0
	1978	90	2,577	1	17	0	0	0	0
Grand Traverse	1977	964	25,698	21	1,489	16	1,947	45	5,120
	1978	1,035	32,531	21	1,654	7	1,303	47	5,063
Gratiot	1977	181	3,841	1	51	1	6	5	1,872
	1978	164	3,813	5	465	5	418	6	891
Hillsdale	1977	122	3,194	17	1,239	7	229	7	765
	1978	141	3,679	6	460	1	176	2	607
Houghton	1977	142	3,554	5	992	4	200	3	110
	1978	131	3,424	3	52	1	192	5	48
Huron	1977	124	3,308	3	390	3	385	8	268
	1978	134	3,974	11	1,684	1	28	4	724
Ingham	1977	2,038	53,434	12	1,299	22	7,892	57	7,378
	1978	1,658	51,869	23	10,238	39	11,770	41	5,995
Ionia	1977	264	5,908	5	407	5	370	8	163
	1978	239	6,754	8	960	4	320	7	380

TABLE XIV-12. NUMBER OF BUILDINGS AND HOUSING UNITS AUTHORIZED FOR DEMOLITION IN CENTRAL CITIES OF MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1977

City	1972		1973		1974[a]	1975[a]	1976[a]	1977[a]
	Building	Units	Building	Units	Units	Units	Units	Units
Ann Arbor	20	21	34	46	22	23	26	4
Battle Creek	70	94	90	153	136	91	106	126
Bay City	26	31	39	67	49	141	75	93
Detroit	3,990	5,961	4,842	7,422	5,693	4,410	5,620	5,297
Flint	175	175	70	70	759	590	550	347
Grand Rapids	249	249	214	214	0	37	143	180
Jackson	54	84	53	63	58	70	54	68
Kalamazoo	63	75	62	73	97	58	92	78
Portage	--	--	--	--	--	17	13	13
Lansing	138	149	11	11	105	42	145	175
East Lansing	4	8	175	175	97	20	3	3
Muskegon	79	123	152	221	265	203	78	133
Muskegon Heights	36	60	19	25	59	45	33	20
Norton Shores	--	--	--	--	--	22	16	12
Saginaw	105	108	108	124	211	105	175	157

SOURCE: Bureau of the Census, Construction Reports, Housing Units Authorized for Demolition in Permit-Issuing Places, Series C45 (Washington, D.C.: annually).

a. Number of buildings data not available.

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Iosco	1977	306	8,248	3	201	1	180	10	1,438
	1978	356	9,700	7	309	1	66	6	295
Iron	1977	79	2,028	1	143	1	144	8	478
	1978	63	2,015	0	0	0	0	3	675
Isabella	1977	94	2,723	4	518	2	658	5	434
	1978	453	12,844	0	0	3	312	8	824
Jackson	1977	1,177	23,223	17	1,589	7	739	25	1,366
	1978	663	19,228	18	1,835	4	891	15	2,694
Kalamazoo	1977	2,307	59,876	43	6,414	14	1,800	58	5,830
	1978	1,306	45,011	31	11,007	31	5,060	30	12,464
Kalkaska	1977	109	2,422	12	800	4	117	6	156
	1978	118	2,862	15	1,289	4	260	9	421
Kent	1977	3,207	83,888	94	28,327	39	8,291	56	9,512
	1978	4,197	121,147	137	49,375	52	13,991	105	18,160
Keweenaw	1977	1	29	0	0	0	0	0	0
	1978	0	0	0	0	0	0	0	0
Lake	1977	112	2,219	1	10	0	0	3	51
	1978	137	2,565	0	0	0	0	0	0
Lapeer	1977	710	21,836	9	1,363	4	330	11	690
	1978	991	31,860	7	505	8	1,064	6	604
Leelanau	1977	272	8,969	0	0	0	0	3	49
	1978	305	11,534	1	15	1	175	3	281
Lenawee	1977	408	11,897	17	927	2	163	15	989
	1978	436	14,594	14	2,985	4	311	16	3,090
Livingston	1977	1,127	44,585	15	1,835	11	1,781	24	937
	1978	1,834	77,089	24	3,164	12	980	26	2,540
Luce	1977	40	735	0	0	0	0	0	0
	1978	39	900	1	34	1	177	0	0
Mackinac	1977	13	308	1	3	0	0	2	64
	1978	22	748	2	14	0	0	0	0
Macomb	1977	5,525	196,973	129	29,465	43	5,822	84	16,537
	1978	6,792	245,810	151	62,432	45	5,535	120	27,399
Manistee	1977	180	4,221	17	145	1	85	10	173
	1978	234	5,749	6	398	2	500	4	335

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Marquette	1977	1,297	30,596	14	2,206	7	1,501	20	1,333
	1978	595	16,048	7	206	8	1,034	21	1,792
Mason	1977	150	3,486	10	258	0	0	5	148
	1978	203	4,689	16	3,298	1	50	4	408
Mecosta	1977	183	4,705	2	175	6	217	0	0
	1978	314	8,225	2	131	5	775	4	446
Menominee	1977	174	4,289	11	416	1	142	1	244
	1978	193	4,892	3	130	1	239	1	130
Midland	1977	481	17,612	12	851	7	405	11	1,081
	1978	598	21,813	10	1,769	5	1,187	6	924
Missaukee	1977	132	3,049	0	0	0	0	3	40
	1978	128	3,193	2	31	0	0	6	274
Monroe	1977	885	30,143	14	3,507	9	1,089	53	1,162
	1978	651	28,005	18	8,658	6	2,007	50	2,780
Montcalm	1977	300	5,839	3	1,340	10	269	3	140
	1978	273	5,861	10	1,342	4	270	7	327
Montmorency	1977	0	0	0	0	0	0	0	0
	1978	145	5,217	2	476	0	0	8	1,172
Muskegon	1977	714	18,960	31	4,316	11	1,569	17	1,084
	1978	1,035	29,089	18	7,303	10	902	27	2,963
Newaygo	1977	188	4,009	1	4	5	93	17	597
	1978	180	4,460	1	350	2	104	8	414
Oakland	1977	11,199	414,079	197	51,678	107	58,748	263	48,823
	1978	10,141	448,288	235	64,114	95	39,451	169	47,527
Oceana	1977	159	3,897	5	443	2	325	9	258
	1978	138	3,851	3	494	2	205	3	36
Ogemaw	1977	159	4,818	8	1,065	2	208	3	548
	1978	177	6,277	1	600	2	560	4	615
Ontonagon	1977	3	74	0	0	0	0	0	0
	1978	45	770	1	25	0	0	2	38
Osceola	1977	163	2,874	1	60	1	20	5	226
	1978	129	3,107	1	225	2	328	4	401
Oscoda	1977	118	3,479	0	0	0	0	1	123
	1978	92	3,263	0	0	1	241	2	270

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Otsego	1977	281	8,431	7	1,470	4	655	19	1,555
	1978	252	8,802	19	4,079	8	1,518	17	3,061
Ottawa	1977	1,356	39,218	49	12,416	17	1,747	29	2,830
	1978	1,635	48,205	50	9,606	20	5,129	38	2,992
Presque Isle	1977	114	2,736	0	0	1	150	6	339
	1978	89	3,535	0	0	22	99	0	0
Roscommon	1977	344	6,032	3	33	5	328	21	924
	1978	357	8,655	2	75	2	108	14	657
Saginaw	1977	1,343	37,510	19	24,074	20	3,280	46	4,624
	1978	1,251	40,280	18	4,573	27	2,471	48	5,467
St. Clair	1977	745	23,192	10	1,374	9	2,102	24	1,807
	1978	783	25,847	9	4,461	8	1,758	23	1,536
St. Joseph	1977	319	8,351	22	787	1	190	9	212
	1978	438	13,534	27	8,114	8	716	15	728
Sanilac	1977	224	6,330	6	800	1	100	3	200
	1978	200	6,299	6	443	0	0	1	100
Schoolcraft	1977	77	1,379	1	112	0	0	2	181
	1978	50	1,144	0	0	0	0	0	0
Shiawassee	1977	289	9,902	5	507	5	224	6	477
	1978	306	11,113	3	170	1	16	7	746
Tuscola	1977	348	11,136	3	118	3	747	7	454
	1978	329	12,070	4	647	1	97	9	914
Van Buren	1977	333	8,955	6	197	5	4,072	20	165
	1978	368	11,529	8	592	2	521	15	1,508
Washtenaw	1977	1,670	55,749	43	24,494	24	5,846	38	7,479
	1978	2,390	81,242	45	16,296	18	6,392	40	7,115
Wayne	1977	5,405	195,869	205	59,732	92	18,665	275	48,663
	1978	5,868	221,575	235	102,222	136	30,557	206	33,891
Wexford	1977	198	5,588	3	296	1	152	5	195
	1978	334	9,379	8	1,624	7	359	1	40
MICHIGAN	1977	59,057	1,612,567	1,277	298,906	657	156,792	1,636	207,910
	1978	61,010	2,104,418	1,468	432,960	720	156,893	1,502	249,449

TABLE XIV-13. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)

SOURCE: Bureau of the Census, special release.

a. Includes plants processing, producing, and assembling goods and materials together with affiliated buildings such as warehouses, garages, and administrative buildings. Newspaper and printing plants, central bakeries, laundry and dry cleaning plants, and ice plants fall within this definition.

b. Includes banks and professional buildings. Also the administration buildings of labor unions, chambers of commerce, and trade associations, and public administration buildings such as post offices, court houses, city halls, and federal offices.

c. Includes buildings used in buying, selling, distributing, and storing merchandise and materials or performing consumer services, that is, stores, auto and other showrooms, commercial warehouses, grain elevators, garages for storing commercial vehicles, restaurants, taverns, night clubs, bakery shops, laundry and dry cleaning shops, laundromats, frozen food lockers, beauty and barber shops, and animal hospitals.

TABLE XIV-14. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 18 AUGUST 1978

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders		Builders' branch offices	Builders' salesmen	Alteration contractors	
					Partnership or corporation	Individual			Partnership or corporation	Individual
Alcona	2	2	--	1	5	41	--	--	1	22
Alger	--	1	--	3	--	21	--	--	--	1
Allegan	6	6	--	2	16	128	2	1	6	49
Alpena	4	6	--	1	17	74	3	1	6	35
Antrim	1	5	--	--	15	98	--	2	2	16
Arenac	2	--	--	1	2	32	--	--	--	21
Baraga	2	1	--	--	3	11	1	1	1	5
Barry	4	2	2	3	12	88	2	1	5	20
Bay	4	7	2	8	27	198	7	19	22	93
Benzie	2	2	--	3	6	51	--	--	3	20
Berrien	13	13	1	12	59	359	5	20	37	168
Branch	2	1	--	--	15	66	2	4	12	44
Calhoun	9	8	3	20	40	153	1	72	21	72
Cass	3	4	--	1	17	85	2	1	6	26
Charlevoix	4	7	1	5	15	105	--	1	6	26
Cheboygan	2	5	--	2	13	81	1	--	7	30
Chippewa	1	6	--	--	10	56	2	4	4	17
Clare	2	3	--	--	9	90	2	--	5	27
Clinton	9	4	3	3	28	129	1	3	6	33
Crawford	--	1	--	1	3	43	1	--	3	9
Delta	6	4	--	1	7	43	--	1	6	12
Dickinson	3	7	--	4	15	32	2	--	5	13
Eaton	9	8	2	2	24	157	3	7	10	46
Emmet	3	6	1	3	25	107	2	2	15	41
Genesee	16	35	7	42	206	588	14	104	92	251

TABLE XIV-14. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 18 AUGUST 1978 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders		Builders' branch offices	Builders' salesmen	Alteration contractors	
					Partnership or corporation	Individual			Partnership or corporation	Individual
Gladwin	3	--	--	--	9	52	1	--	2	16
Gogebic	--	5	--	1	12	28	1	2	1	7
Grand Traverse	6	21	4	34	60	283	6	5	22	76
Gratiot	2	2	--	--	20	59	4	2	6	28
Hillsdale	1	1	--	--	13	63	2	--	9	37
Houghton	1	17	--	2	16	35	1	3	7	7
Huron	2	3	--	--	12	70	2	2	8	33
Ingham	38	42	32	89	151	637	12	64	55	123
Ionia	5	--	1	--	9	90	1	4	7	32
Iosco	2	6	--	1	20	95	1	--	4	29
Iron	1	2	--	1	9	15	2	--	2	3
Isabella	2	3	--	6	10	104	6	--	9	16
Jackson	6	20	5	15	53	253	6	43	51	120
Kalamazoo	14	15	5	61	78	402	6	17	57	115
Kalkaska	1	3	--	--	4	49	1	3	2	8
Kent	21	36	14	107	166	636	9	79	91	188
Keweenaw	1	1	--	--	1	4	--	1	--	1
Lake	--	5	--	--	3	29	1	--	--	6
Lapeer	4	3	1	4	30	190	--	3	14	64
Leelanau	--	1	1	4	17	62	--	2	1	14
Lenawee	8	4	--	4	29	165	5	19	18	101
Livingston	4	11	1	6	65	368	3	3	14	73
Luce	1	5	--	--	3	14	--	--	--	3
Mackinac	2	--	--	--	13	33	--	2	--	5
Macomb	25	27	2	73	379	1,098	16	96	171	392

TABLE XIV-14. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 18 AUGUST 1978 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders		Builders' branch offices	Builders' salesmen	Alteration contractors	
					Partnership or corporation	Individual			Partnership or corporation	Individual
Manistee	4	1	--	1	13	48	3	--	1	16
Marquette	6	12	--	4	36	116	5	6	18	43
Mason	4	4	--	1	14	44	3	4	5	28
Mecosta	10	8	--	7	17	72	2	1	3	27
Menominee	1	1	--	3	12	35	1	--	3	15
Midland	3	10	2	18	30	147	1	2	17	48
Missaukee	1	--	--	--	2	28	--	--	3	5
Monroe	3	4	--	3	59	265	5	15	37	103
Montcalm	2	3	--	--	20	108	1	1	7	37
Montmorency	1	2	--	1	7	46	--	--	3	16
Muskegon	9	8	5	13	40	271	4	10	21	71
Newaygo	4	3	--	--	7	60	3	1	5	38
Oakland	51	110	40	547	1,002	2,641	36	688	242	581
Oceana	1	1	1	3	6	53	--	1	6	16
Ogemaw	2	2	--	--	6	56	1	1	1	18
Ontonagon	--	3	--	--	--	3	--	--	1	2
Osceola	1	4	--	--	5	52	1	1	2	16
Oscoda	--	2	--	--	3	35	--	--	5	10
Otsego	2	7	1	2	11	88	3	--	7	32
Ottawa	13	15	4	31	67	368	4	9	42	66
Presque Isle	1	3	--	1	6	38	1	--	4	15
Roscommon	2	7	--	--	16	118	2	1	2	22
Saginaw	9	11	2	29	81	371	10	71	51	143
Sanilac	2	4	--	1	14	107	4	1	5	56
Schoolcraft	1	2	--	--	5	15	--	--	2	3

TABLE XIV-14. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 18 AUGUST 1978 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders: Partnership or corporation	Residential builders: Individual	Builders' branch offices	Builders' salesmen	Alteration contractors: Partnership or corporation	Alteration contractors: Individual
Shiawassee	3	7	1	--	18	131	3	4	14	57
St. Clair	10	20	--	15	47	279	5	9	27	127
St. Joseph	4	2	--	2	23	126	2	5	15	58
Tuscola	3	2	--	--	13	144	2	4	11	62
Van Buren	5	6	1	--	17	175	1	--	10	53
Washtenaw	13	16	21	137	88	419	9	10	46	102
Wayne	74	87	21	354	573	1,936	28	451	367	892
Wexford	2	8	--	3	15	67	5	1	1	19
Outstate	29	175	77	1,439	3	10	--	2	--	3
Foreign	--	--	--	11	--	--	--	--	--	--
Bad county codes	--	--	--	1	--	--	--	1	2	--
TOTAL	535	927	264	3,152	4,050	16,133	284	1,893	1,818	5,394

SOURCE: Michigan Department of Licensing and Regulation, special release.

The first postwar manufacturing census covered the year 1947. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at 5-year intervals covering the years ending in "2" and "7." These economic censuses cover construction industries, manufacturing, mining, retail trade, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in mechanical or chemical transformation of inorganic or organic substances into new products fall in the manufacturing division, where they are further classified according to industry. The product groupings from which industry classifications are derived are based on such considerations as whether they are typically produced by the same establishment, similarity of manufacturing processes, types of materials used, types of customers, and so forth. An industry generally is defined as a group of establishments producing a single product or a more or less closely related group of products. Some activities of a service nature (e.g., enameling and engraving) are included in manufacturing if they are performed for the trade, but in services or retail trade if they are performed primarily for households.

A company operating establishments at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if possible and if the activities are of significant magnitude. Establishments with less than $5,000 of value of products are excluded.

Beginning with 1949, the Census Bureau has published annual reports for intercensal years based on an annual survey. The Annual Survey of Manufactures: 1976 is the most recent; a 1977 Census is underway at this writing (27 July 1978). For the 1976 Survey, any manufacturing establishment with 250 or more employees was included. Companies with no establishment having 250 or more employees were sampled. The statistics on which the 1976 Survey was based were developed from about 70,000 manufacturing establishments out of a national total of approximately 300,000. The statistics from these establishments were adjusted so as to represent the universe of manufacturing establishments for any industry or area.

Most of the employment statistics from the Census compilations were omitted from this edition of the Abstract, because they disagree with the statistics published by the Michigan Employment Security Commission. Census employment estimates of the number of production workers in manufacturing are averages for the four payroll periods ending nearest the 15th of March, May, August, and November. For other employees the figure used is the mid-March total. The Michigan Employment Security Commission, on the other hand, makes monthly estimates of total employment, wage and salary, and averages the twelve figures for annual estimates. Employment data for manufacturing is given in Tables V-11, V-12, and V-13. Employment and earnings of workers in establishments covered under the state unemployment insurance program is indicated in Table V-20. Most manufacturing establishments are, in fact, covered under the program.

The ranking of Michigan counties according to the relative importance of manufacturing (Table XV-16) was developed on the basis of personal income accounts and employment statistics prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Personal income is discussed in the narrative material introducing

Chapter VI. By and large, the BEA income and employment statistics for manufacturing are consistent with the employment figures released by the Michigan Employment Security Commission since they are based on the same monthly reports from employers.

The production of motor vehicles is of special interest because of the great importance of this industry to Michigan. The Automobile Manufacturers Association publishes a wealth of information on the industry, and Automotive News and Ward's Communications, Inc. in Detroit are leading sources of regional statistics about the industry. R. L. Polk & Company, also in Detroit, compiles information about new car and truck sales and registrations. Some of these data are reproduced in Chapter XVI.

Current Industrial Reports, published by the Bureau of the Census, contains current information about production and shipments of a great variety of manufactured items. A few of the series give details by states.

The American Iron and Steel Institute monitors steel production in the United States and various centers, monthly. Their Annual Statistical Report and Iron and Steel Works Directory for the United States and Canada provide detailed information on the make-up of the steel industry.

Statistics on rates for various occupations in manufacturing and other industries are published by the United States Bureau of Labor Statistics. A special breakdown for automobile workers in the state of Michigan is available, because this state dominates the industry. The latest such compilation is for April 1973; the previous two were for April 1963 and April 1969.

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TABLE XV-1. ANNUAL PAYROLL AND VALUE ADDED IN MICHIGAN AND UNITED STATES MANUFACTURING ESTABLISHMENTS, SELECTED YEARS: 1949-1976

(Millions of dollars)

Year	Yearly payroll[a]		Value added by manufacture[b]	
	Michigan	United States[c]	Michigan	United States[c]
1949	3,479.7	41,482.0	5,770.0	75,366.5
1950	4,144.4	46,642.8	7,392.3	89,749.8
1951	4,604.5	54,741.5	7,858.4	102,085.8
1952	4,933.0	59,598.2	8,320.7	109,162.1
1953	5,919.4	66,492.9	9,781.6	121,659.1
1954	5,248.9	62,962.7	8,707.2	117,032.3
1955	6,083.5	69,096.6	10,690.5	135,022.5
1956	5,827.5	74,015.1	10,201.5	144,909.3
1957	5,835.5	76,314.6	10,375.4	147,838.4
1958	5,161.2	73,875.2	8,363.6	141,540.6
1959	5,855.1	81,203.6	10,534.8	161,535.8
1960	6,106.8	83,672.5	10,858.2	163,998.5
1961	5,678.2	83,677.4	10,191.7	164,281.1
1962	6,281.0	89,819.2	11,969.3	179,071.1
1963	6,950.7	93,283.3	13,090.3	192,082.9
1964	7,604.9	98,685.3	14,358.6	206,193.6
1965	8,586.1	106,643.2	16,885.6	226,939.9
1966	9,221.3	117,157.4	17,629.2	250,880.1
1967	9,357.2	123,480.6	17,241.6	261,983.8
1968	10,386.4	132,568.4	19,310.6	285,016.2
1969	11,041.6	142,645.1	20,253.0	304,308.2
1970	10,232.5	141,886.4	17,959.4	300,227.6
1971	11,128.6	144,246.3	20,270.6	314,138.4
1972	12,741.4	160,414.4	23,377.4	353,973.4
1973	14,768.3	193,324.5	27,170.4	405,583.6
1974	14,807.5	208,312.0	26,333.2	452,497.0
1975	14,100.4	209,519.0	25,084.0	442,485.2
1976	17,107.2	233,388.7	32,389.8	511,471.1

SOURCES: Bureau of the Census, Annual Survey of Manufactures: 1974, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), M76(AS)-1, Table 1 (1975 and 1976 data), Annual Survey of Manufactures: 1976, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1978), M76(AS)-6, East North Central Section, Table 3 (1975 and 1976 Michigan data), U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), General Summary Section, Table 1 (1947-1972 U.S. data), and U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 2 (1958-1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1947 to 1957 Michigan data).

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements; see Table XV-4 for employer contributions to fringe benefits for 1974-1976.

b. Adjusted value added for 1956-1967; unadjusted value added for previous years. Unadjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales). Adjusted value added takes into account the net change in finished goods and work-in-process inventories during the year.

c. Excludes Alaska and Hawaii prior to 1958.

TABLE XV-3. ANNUAL MAN-HOURS AND WAGES OF PRODUCTION WORKERS IN MICHIGAN AND U.S. MANUFACTURING ESTABLISHMENTS, SELECTED YEARS: 1950-1976

Year	Man-hours[a] (millions)		Wages[b] (millions of dollars)	
	Michigan	United States[c]	Michigan	United States[c]
1950	1,769.2	23,716.5	3,112.9	34,600.0
1951	1,761.2	25,263.8	3,397.4	40,654.8
1952	1,729.5	25,617.6	3,587.3	43,763.6
1953	1,987.3	27,065.6	4,327.1	48,979.1
1954	1,650.3	24,334.1	3,661.0	44,590.5
1955	1,912.4	25,898.3	4,365.1	49,217.9
1956	1,686.3	26,088.5	4,018.6	52,040.8
1957	1,592.6	25,208.0	3,946.7	52,569.0
1958	1,204.1	22,679.2	3,184.8	49,605.2
1959	1,388.1	24,443.6	3,769.7	54,714.1
1960	1,412.5	24,174.4	3,977.4	55,555.5
1961	1,256.4	23,289.4	3,597.8	54,764.6
1962	1,400.9	24,269.5	4,124.6	59,134.1
1963	1,473.9	24,509.4	4,521.0	62,093.6
1964	1,564.6	25,245.5	4,948.8	65,838.9
1965	1,721.7	26,567.8	5,698.9	71,361.5
1966	1,775.7	28,102.5	6,066.7	78,256.4
1967	1,669.2	27,837.6	6,008.0	81,393.6
1968	1,750.2	28,156.8	6,785.8	87,485.4
1969	1,743.1	28,599.8	7,154.9	93,459.6
1970	1,468.1	26,669.3	6,332.4	91,609.0
1971	1,463.5	25,265.9	6,965.4	93,231.7
1972	1,582.6	26,696.7	8,092.2	105,494.7
1973	1,736.4	28,096.9	9,545.3	118,332.6
1974	1,532.6	27,251.0	9,101.2	124,977.1
1975	1,308.4	24,069.6	8,512.1	121,429.0
1976	1,503.2	25,354.2	10,792.9	137,565.4

SOURCES: Bureau of the Census, Annual Survey of Manufactures: 1976, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), M76(AS)-1, Table I (1975 and 1976 U.S. data), Annual Survey of Manufactures; 1976, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties and Selected Cities (Washington, D.C.: 1978), M76(AS)-6, East North Central section, Table 3 (1958 to 1973 Michigan data), U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), General summary, Table 1 (1950 to 1972 U.S. data), U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 2 (1958 to 1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1950 to 1957 Michigan data).

a. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Data not available for Michigan prior to 1950.

b. Includes all forms of compensation before deductions for Social Security, income tax, and so forth.

c. Excludes Alaska and Hawaii prior to 1958.

TABLE XV-4. ANNUAL PAYROLL AND FRINGE BENEFITS FOR OPERATING MANUFACTURING ESTABLISHMENTS, AND PAYROLLS FOR ADMINISTRATIVE AND AUXILIARY MANUFACTURING UNITS, MICHIGAN AND THE UNITED STATES: 1967-1969 AND 1974-1976

(In millions of dollars)

Year	Operating manufacturing establishments			Administrative and auxiliary units[c]	Total
	Payroll[a]	Social Security and other legally required expenditures	Employer payments for other programs[b]		
			Michigan		
1967	8,290.9	441.1	833.5	1,066.3	10,631.8
1968	9,218.8	489.2	924.4	1,131.6	11,764.0
1969	9,765.5	566.7	1,062.2	1,276.1	12,670.5
1974	12,666.6	967.1	2,025.9	2,140.6	17,800.2
1975	12,031.4	957.7	2,188.6	2,069.0	17,246.7
1976	14,823.3	1,191.5	2,584.2	2,283.9	20,882.9
			United States		
1967	123,480.5	6,604.0	8,456.2	8,727.9	147,268.6
1968	132,568.4	7,207.1	9,366.9	9,254.3	158,396.7
1969	142,705.1	7,971.7	10,664.1	10,120.5	171,461.4
1974	190,574.3	13,470.9	19,392.2	18,228.8	241,666.2
1975	190,504.1	13,604.6	21,807.0	19,014.9	244,930.6
1976	212,997.8	15,872.7	25,604.3	20,390.9	274,865.7

SOURCE: Bureau of the Census, Annual Survey of Manufactures, 1968-1969 (Washington, D.C.: 1973), chapter 1, Table 2, chapter 8, Tables IB, 2A, and 2B, and chapter 9, East North Central section, Table 3 for 1969 and 1968 data; Census of Manufactures, 1972 MC72(3)-23 Michigan (Washington, D.C.: 1975), Table 1; Annual Survey of Manufactures, 1975 M75 (AS)-1, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), Table 4, and M75(AS)-6, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1977), East North Central section, Tables 3 and 4; and Annual Survey of Manufactures, 1976 M76(AS)-1, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), Table 4, and M76(AS)-6, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1977), East North Central Section, Tables 3 and 4.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth.

b. Private pension plans, health and sickness insurance, supplemental unemployment funds, and so forth.

c. Units not operated as an integral part of manufacturing establishments and serving two or more manufacturing establishments.

TABLE XV-5. GROSS BOOK VALUE OF DEPRECIABLE ASSETS OF OPERATING MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1957, 1967-1970, AND 1973-1976

(In millions of dollars)

Year	Structures and buildings	Machinery and equipment	Total
		Michigan	
1957	n.a.	n.a.	8,280.8
1967	4,103.3	10,304.4	14,407.7
1968	4,270.6	10,896.3	15,166.9
1969	4,455	11,680	16,135
1970	4,635	12,199	16,835
1973	n.a.	n.a.	n.a.
1974	5,476.3	15,080.5	20,556.3
1975	5,859.5	16,470.7	22,329.8
1976	5,831.5	17,121.3	22,952.4
		United States	
1957	n.a.	n.a.	110,489.2
1967	61,381.4	156,697.0	218,078.4
1968	65,165.2	166,613.9	231,779.1
1969	70,018	179,225	249,244
1970	74,263	192,003	266,266
1973	86,801	229,360	316,158
1974	92,454	245,689	338,251
1975	n.a.	n.a.	n.a.
1976	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, Annual Survey of Manufactures, 1970 M70 (AE)-7 (Washington, D.C.: September 1972), Table 3, Annual Survey of Manufactures, 1976 M76 (AS)-6 (Washington, D.C.: 1978), Table 4, and similar documents for intervening years.

n.a.: not available.

TABLE XV-6. GROSS BOOK VALUE OF DEPRECIABLE ASSETS IN OPERATING MANUFACTURING ESTABLISHMENTS IN MICHIGAN, BY INDUSTRY GROUP: 31 DECEMBER 1962, 1963, and 1964

(In millions of dollars)

Industry group	1962	1963	1964
Food and kindred products	508,220	539,634	569,733
Textile mill products	25,878	26,745	28,623
Apparel and related products	54,228	60,573	65,113
Lumber and wood products	85,385	89,748	95,130
Furniture and fixtures	87,76	89,198	90,378
Paper and allied products	473,967	497,817	519,286
Printing and publishing	172,882	182,173	193,197
Chemicals and allied products	817,328	838,638	869,487
Petroleum and coal products	171,138	172,739	179,774
Rubber and plastics products	189,604	199,601	213,824
Stone, clay, and glass products	322,526	332,143	352,462
Primary metal industries	1,548,855	1,628,483	1,721,484
Fabricated metal products	587,974	625,619	750,877
Nonelectrical machinery	924,831	981,991	1,051,917
Electrical machinery	167,100	176,171	187,048
Transportation equipment	3,534,272	3,709,679	4,017,403
Instruments and related products	70,036	76,014	80,775
Miscellaneous manufacturing	49,085	50,452	53,657
Ordnance and accessories	4,817	4,809	5,292
Total[a]	9,804,540	10,292,027	11,055,287

SOURCE: Bureau of the Census, Annual Survey of Manufactures, M65(AS)-6, supplement (Washington, D.C.: February 1972), Table I.

a. Includes industries for which separate details were not published.

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Food and kindred products	570.2	60.8	371.6	1,849.2
Meat products	93.6	12.1	70.4	207.5
Meatpacking plants	48.6	7.0	39.6	115.6
Sausages and other prepared meats	40.9	4.5	28.2	84.4
Dairy products	62.3	4.5	30.5	219.7
Fluid milk	39.4	2.1	15.7	113.8
Preserved fruits and vegetables	63.1	11.5	45.2	250.3
Canned fruits and vegetables	18.1	3.5	12.4	82.9
Grain mill products	117.1	11.3	94.6	526.8
Bakery products	89.0	8.9	55.4	212.5
Bread, cake, and related products	75.8	7.1	45.7	180.7
Beverages	92.0	5.8	41.2	286.6
Bottled and canned soft drinks	49.2	2.5	15.6	139.8
Textile mill products	40.7	5.0	28.7	96.8
Misc. textile goods	36.8	4.3	26.2	85.2
Apparel, other textile products	312.4	35.9	251.9	642.3
Misc. fabricated textile products	285.8	29.6	231.8	588.2
Lumber and wood products	126.7	24.1	92.1	255.7
Sawmills and planing mills	34.0	8.1	28.2	64.1
Sawmills, planing mills, general	25.4	5.4	21.9	46.9
Millwork, plywood, struc. membs.	34.5	5.8	23.6	67.0
Miscellaneous wood prods.	27.5	4.7	19.8	52.0
Wood products, NEC	24.4	4.3	17.7	47.3

TABLE XV-2. MANUFACTURERS' EXPENDITURES FOR NEW PLANT AND NEW EQUIPMENT IN MICHIGAN AND THE UNITED STATES: 1955-1976

(Millions of dollars)

Year	Michigan			United States[a]		
	New structures and additions to plant	New machinery and equipment	Total	New structures and additions to plant	New machinery and equipment	Total
1955	197	609	806	2,426	5,808	8,233
1956	232	783	1,015	3,472	7,762	11,233
1957	129	566	695	3,865	8,279	12,144
1958	111	354	465	3,235	6,308	9,544
1959	102	430	531	2,582	6,558	9,140
1960	134	522	656	2,818	7,279	10,098
1961	110	453	563	2,749	7,031	9,780
1962	115	441	556	2,731	7,705	10,436
1963	171	591	762	2,966	8,404	11,370
1964	224	807	1,031	3,269	10,025	13,294
1965	381	1,009	1,390	4,186	12,429	16,615
1966	n.a.	n.a.	1,453	5,230	15,006	20,236
1967	336	1,024	1,360	5,714	15,789	21,503
1968	n.a.	n.a.	1,170	5,294	15,319	20,613
1969	n.a.	n.a.	1,372	5,806	16,485	22,291
1970	n.a.	n.a.	1,301	5,756	16,409	22,164
1971	n.a.	n.a.	1,202	5,342	15,599	20,941
1972	248	1,257	1,505	5,370	18,707	24,073
1973	n.a.	n.a.	1,998	6,016	20,958	26,973
1974	326	2,524	2,851	8,209	27,337	35,546
1975	307	1,956	2,263	n.a.	n.a.	37,262
1976	301	2,335	2,636	n.a.	n.a.	40,670

SOURCES: Bureau of the Census, Annual Survey of Manufactures: 1976, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1978), M76(AS)-6, East North Central Section, Table 3 (1973 Michigan data), Annual Survey of Manufactures: 1974, Expenditures for New Plant and New Equipment (Washington, D.C.: 1977), M74(AS)-5, Tables 1 and 2 (1973 and 1974 U.S. data), U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), Expenditures for Plant and Equipment section, Table 1 (1953 to 1972 U.S. data), U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 3 (1967 to 1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1953 to 1966 Michigan data).

a. Excludes Alaska and Hawaii prior to 1958. n.a.: not available.

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Furniture and fixtures	237.1	29.7	162.3	501.3
Household furniture	52.6	9.1	37.5	96.8
Wood household furniture	26.5	5.5	20.2	51.4
Office furniture	83.4	7.9	59.1	184.6
Metal office furniture	76.8	7.1	54.6	172.3
Public bldg., related furniture	29.0	3.2	17.7	41.4
Partitions and fixtures	46.9	6.6	31.1	98.4
Wood partitions and fix.	31.9	4.6	20.8	66.1
Paper and allied products	316.5	35.2	220.3	684.9
Paperboard mills	51.4	5.6	39.7	92.9
Misc. converted paper prods.	68.3	8.0	44.3	172.8
Paperboard containers and boxes	92.1	10.5	59.9	193.2
Corrugated and solid fiber boxes	47.5	5.1	28.3	98.5
Printing and publishing	418.9	36.5	226.3	908.5
Newspapers	157.0	8.8	59.5	331.1
Books	39.1	3.6	19.3	110.5
Misc. publishing	25.6	2.1	12.8	91.4
Commercial printing	127.1	14.7	85.2	230.2
Commer. printing, letterpress	35.4	4.9	23.8	69.3
Commer. printing, lithographic	89.5	9.4	59.6	156.4
Chemicals and allied prods.	520.1	39.7	287.6	1,858.6
Plastics materials, synthetics	64.9	3.8	33.5	156.1
Drugs	119.7	9.6	73.2	543.0
Paints and allied prods.	54.3	3.6	25.4	209.6
Industrial organic chem.	133.1	9.7	75.0	375.5
Misc. chemical products	52.1	4.9	29.8	193.1

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Petroleum and coal prods.	36.1	3.3	22.0	142.8
Rubber, misc. plastics products	315.2	42.2	196.3	667.7
Misc. plastics prods.	212.0	32.0	133.2	464.6
Stone, clay, glass prods.	252.6	27.7	173.2	607.0
Prods. of purchased glass	40.8	4.4	28.6	94.0
Concrete, gypsum, plaster products	64.6	6.8	37.8	153.4
Misc. nonmetallic mineral products	50.7	6.2	32.1	115.8
Primary metal industries	1,416.4	141.3	1,096.7	2,517.7
Blast furnace, basic steel products	533.5	42.5	413.7	936.5
Blast furnaces and steel mills	433.9	33.6	342.8	731.9
Iron and steel foundries	637.6	64.5	505.1	1,048.2
Gray iron foundries	486.1	49.1	399.9	728.0
Nonferrous rolling and drawing	95.2	12.0	71.3	196.1
Copper rolling and drawing	35.0	4.6	27.4	74.0
Nonferrous foundries	90.8	15.0	66.5	182.0
Aluminum foundries	48.6	6.9	38.1	94.8
Nonferrous foundries,NEC	31.1	6.5	19.8	63.9
Fabricated metal products	1,963.6	216.9	1,442.3	3,957.4
Cutlery, handtools, and hardware	254.5	26.7	186.5	530.3
Plumbing, heating, except electric	31.7	3.8	20.5	76.6
Fabricated struc. metal products	170.2	18.7	110.6	316.2

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Metal doors, sash, trim	44.0	6.4	27.9	81.9
Screw machine prod., bolts etc.	159.8	17.6	109.9	360.7
Screw machine prods.	84.0	9.7	56.2	167.9
Bolts, nuts, rivets, washers	75.8	7.8	53.7	192.8
Metal forgings/stampings	1,025.6	110.0	800.8	2,040.3
Automotive stampings	882.3	92.7	693.8	1,743.8
Metal stampings, NEC	63.2	9.0	45.1	127.5
Metal services, NEC	81.1	12.6	54.9	161.1
Plating and polishing	54.9	9.0	38.2	105.0
Metal coating, allied services	26.2	3.7	16.7	56.1
Misc. fabricated metal products	194.8	24.9	137.6	396.7
Valves and pipe fittings	61.3	6.4	38.6	126.6
Wire springs	40.9	5.1	30.8	90.9
Fabricated metal prods., NEC	44.6	6.5	32.7	77.2
Machinery, except elec.	2,038.8	192.8	1,320.6	4,158.6
Engines and turbines	194.7	14.6	119.5	508.3
Farm and garden mach.	80.2	7.4	55.1	164.8
Construction, related mach.	203.7	16.0	116.0	388.2
Construction machinery	80.5	7.6	58.8	212.0
Conveyors and conveying equipment	63.1	4.0	23.8	115.0
Metalworking machinery	768.7	75.7	526.8	1,413.3
Machine tools, metal-cutting	146.6	11.1	83.9	288.8
Special dies, tools, jigs, etc.	388.4	40.8	290.0	653.6
Machine tool accessories	165.6	16.2	107.6	335.1

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Special industry mach.	78.0	7.4	45.2	134.4
Special industry mach.,NEC	57.7	5.3	33.5	95.7
General industrial mach.	214.3	19.8	133.5	446.1
Power transmission equipment, NEC	47.1	4.4	32.1	118.7
General industrial mach., NEC	35.6	3.3	18.0	62.8
Office and computing mach.	90.6	6.5	43.7	144.9
Refrigeration and serv. machines	132.6	14.0	88.5	371.3
Refrig., heating equip.	106.9	11.1	73.7	312.5
Misc. machinery, except electrical	275.9	31.4	192.3	587.2
Electrical, electronic equipment	413.9	48.3	296.1	856.3
Electrical industrial apparatus	84.0	10.1	54.3	147.6
Motors and generators	25.7	3.9	17.7	45.2
Communication equipment	31.7	3.3	14.4	59.0
Transportation equipment	5,578.7	531.8	4,439.5	12,141.6
Motor vehicles/equip.	5,382.8	511.4	4,323.3	11,792.6
Motor vehicles and car bodies	2,696.1	248.7	2,172.1	6,457.5
Motor vehicles parts, accessories	2,658.7	258.5	2,131.5	5,267.5
Aircraft and parts	53.8	4.8	30.2	108.5
Aircraft equipment, NEC	38.2	3.2	21.1	70.9
Transportation equip., NEC	67.1	8.2	44.4	110.8
Instruments, related prods.	146.4	16.4	87.1	298.7
Engineering, scientific instruments	47.3	5.3	33.8	84.2
Measuring, controlling devices	43.4	3.9	22.5	85.3
Misc. manufacturing industries	92.8	10.7	56.7	175.9
Toys and sporting goods	41.7	5.0	23.7	94.9
Administrative and auxiliary[d]	2,283.9	n.a.	n.a.	n.a.

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1976 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
TOTAL	17,107.2	1,503.2	10,792.9	32,389.8

SOURCE: Bureau of the Census, Annual Survey of Manufactures: 1976, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1978), M76(AS)-6, East North Central Section, Table 3.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements; see Table XII-7 for employer contributions to fringe benefits for 1969.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when employee was not at plant.

c. Adjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales) and adjusting for the net change in finished goods and work in process inventories during the year. An exception is the pickles, sauces, and salad dressings industry, in which establishments reported value of production instead of value of shipments. For this industry, the formula was modified to exclude any change in finished products inventories between the beginning and end of the year.

d. Administrative employees include those involved in general company policy determination, planning, and management. Auxiliary employees are those concerned with storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories.

n.a.: not available.

NEC.: not elsewhere classified.

TABLE XV-8. HOURS AND EARNINGS FOR PRODUCTION WORKERS IN MANUFACTURING, MICHIGAN AND THE UNITED STATES: 1947-1978

Year	Michigan annual average			United States annual average		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
1947	$ 56.63	40.1	$ 1.42	$ 49.17	40.4	$ 1.22
1948	61.61	39.8	1.55	53.12	40.0	1.33
1949	63.13	39.1	1.62	53.88	39.1	1.38
1950	71.30	41.5	1.72	58.32	40.5	1.44
1951	74.55	40.1	1.86	63.3	40.6	1.56
1952	81.34	41.0	1.98	67.16	40.7	1.65
1953	86.65	41.5	2.09	70.47	40.5	1.74
1954	87.84	40.8	2.15	70.49	39.6	1.78
1955	94.84	42.3	2.24	75.70	40.7	1.86
1956	94.98	40.8	2.33	78.78	40.4	1.95
1957	97.64	40.0	2.44	81.59	39.8	2.05
1958	99.13	39.4	2.52	82.71	39.2	2.11
1959	108.71	40.9	2.66	88.26	40.3	2.19
1960	112.00	40.8	2.75	89.72	39.7	2.26
1961	112.32	40.1	2.80	92.34	39.8	2.32
1962	121.43	41.8	2.91	96.56	40.4	2.39
1963	128.27	42.5	3.02	99.63	40.5	2.46
1964	135.11	43.5	3.11	102.97	40.7	2.53
1965	143.79	44.6	3.22	107.53	41.2	2.61
1966	145.10	43.3	3.35	112.34	41.3	2.72
1967	145.78	42.0	3.47	114.90	40.6	2.83
1968	164.15	43.3	3.79	122.51	40.7	3.01
1969	166.78	42.0	3.97	129.51	40.6	3.19
1970	168.33	40.6	4.15	133.73	39.8	3.36
1971	188.19	41.0	4.59	142.44	39.9	3.57
1972	211.52	42.8	4.94	154.69	40.6	3.81
1973	228.63	43.4	5.27	166.06	40.7	4.08
1974	232.19	41.3	5.62	176.40	40.0	4.41
1975	250.76	40.8	6.15	189.51	39.4	4.81
1976	290.97	42.7	6.81	207.60	40.0	5.19
1977	326.27	43.3	7.54	226.89	40.3	5.63
1978	349.50	43.0	8.13	249.27	40.4	6.17

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: March 1979), vol. 26, no. 3, Table C-1; and Michigan Employment Security Commission, special release.

NOTE: The dollar figures are cash earnings before payroll deductions and do not include fringe benefits such as company paid health and welfare premiums and employer contributions to Social Security.

TABLE XV-10. HOURS AND EARNINGS OF PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP: 1978

Industry group	Michigan			United States		
	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings
Durable goods	43.4	$ 8.39	$ 364.13	41.1	$ 6.58	$ 270.44
Lumber and wood products	39.2	5.06	198.51	39.8	5.61	223.28
Furniture and fixtures	40.9	4.82	238.04	39.3	4.68	183.92
Primary metal products	43.7	8.86	387.05	41.8	8.20	342.76
Fabricated metal products	42.0	8.07	339.06	41.0	6.34	259.94
Nonelectrical machinery	43.5	8.07	351.05	42.0	6.76	283.92
Electrical machinery	42.7	7.16	305.52	40.3	5.83	234.95
Transportation equipment	44.4	9.12	404.93	42.1	7.91	333.01
Motor vehicle and equipment	44.5	9.19	408.87	43.2	8.51	367.63
Nondurable goods	41.4	6.95	287.52	39.4	5.53	217.88
Food and kindred products	41.3	6.81	281.09	39.8	5.80	230.84
Textile mill products & apparel	41.1	7.90	324.69	38.0	4.12	156.79
Paper and allied products	45.1	6.90	310.96	42.9	6.52	279.71
Printing, publishing, and allied industries	37.9	7.06	267.54	37.6	6.47	243.27
Chemicals and allied products	43.1	7.83	337.60	41.9	7.01	293.72
TOTAL	43.0	8.13	349.50	40.4	6.17	249.27

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: March 1979), vol. 26, no. 3, Table C-2; and Michigan Employment Security Commission, special release.

TABLE XV-11. LABOR TURNOVER RATES IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES: 1963-1978

	Accessions						Separations					
	Michigan			United States			Michigan			United States		
Year	New hires	Recalls	Total	New hires	Recalls	Total	Quits	Layoffs	Total	Quits	Layoffs	Total
1963	1.4	n.a.	3.6	2.4	n.a.	3.9	.6	1.8	3.7	1.4	1.8	3.9
1964	2.0	n.a.	3.8	2.6	n.a.	4.0	.9	1.6	3.8	1.5	1.7	3.9
1965	2.5	n.a.	4.2	3.1	n.a.	4.3	1.3	1.9	4.1	1.9	1.4	4.1
1966	3.0	n.a.	4.6	3.8	n.a.	5.0	1.7	2.1	5.1	2.6	1.2	4.6
1967	2.4	n.a.	4.1	3.3	n.a.	4.4	1.5	2.3	4.8	2.3	1.4	4.6
1968	2.8	n.a.	4.6	3.5	n.a.	4.6	1.8	1.8	4.7	2.5	1.2	4.6
1969	2.9	n.a.	4.6	3.7	n.a.	4.7	1.9	2.3	5.3	2.7	1.2	4.9
1970	1.5	n.a.	4.2	2.8	n.a.	4.0	1.1	3.7	5.8	2.1	1.8	4.8
1971	1.4	n.a.	3.4	2.6	n.a.	3.9	.9	2.1	3.9	1.8	1.6	4.2
1972	2.4	n.a.	3.7	3.3	n.a.	4.4	1.3	1.2	3.5	2.2	1.1	4.2
1973	2.7	n.a.	3.7	3.9	n.a.	4.8	1.6	.8	3.6	2.7	.9	4.6
1974	1.7	n.a.	3.4	3.2	n.a.	4.2	1.2	2.8	5.1	2.3	1.5	4.8
1975	.7	n.a.	3.4	2.0	n.a.	3.7	.6	3.2	4.6	1.4	2.1	4.2
1976	1.7	.8	3.1	2.6	1.0	3.9	.8	1.1	2.7	1.7	1.3	3.8
1977	1.8	.6	3.0	2.8	.9	4.0	.9	1.1	2.8	1.9	1.2	3.8
1978	1.6	.5	2.3	3.1	.7	4.1	.9	.8	2.2	2.1	.9	3.8

SOURCES: Michigan Employment Security Commission, special release; Bureau of Labor Statistics, Handbook of Labor Statistics 1975 - Reference Edition, Bulletin 1865 (Washington, D.C.: 1975) Table 53, and Employment and Earnings, vol. 26, no. 3 (Washington, D.C.: February 1979), Table D-1.

n.a.: not available.

TABLE XV-12. LABOR TURNOVER RATES IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP: 1978

Industry group	Accessions			Separations		
	New hires	Recalls	Total	Quits	Layoffs	Total
Michigan						
Furniture and fixtures	3.7	.4	4.2	2.0	.6	3.3
Primary metals	1.3	.6	1.9	.7	.5	1.7
Fabricated metals	2.0	.4	3.2	1.3	1.3	3.1
Nonelectrical machinery	1.7	.5	2.4	1.0	.8	2.1
Electrical machinery	1.8	.8	3.4	1.0	1.2	3.0
Transportation equipment	1.3	.4	2.2	.6	.7	1.6
Motor vehicles only	1.3	.4	2.2	.6	.7	1.6
Total, durable goods	1.6	.4	2.2	.9	.8	2.1
Food and kindred products	2.6	1.6	4.4	1.5	1.9	4.0
Textile mill products and apparel	1.7	.9	3.2	.8	1.5	2.8
Paper and allied products	1.6	.5	2.3	.8	.8	2.2
Chemicals, petroleum, and related products	1.2	.2	1.7	.8	.3	1.5
Total, nondurable goods	2.0	1.0	3.3	1.2	1.2	2.9
TOTAL	1.6	.5	2.3	.9	.8	2.2
United States						
Furniture and fixtures	5.2	.4	5.8	3.8	.7	5.7
Primary metals	1.8	.8	2.9	1.0	.6	2.5
Fabricated metals	3.2	.6	4.1	2.1	.9	3.9
Nonelectrical machinery	2.4	.3	3.0	1.3	.4	2.5
Electrical machinery	2.6	.4	3.5	1.6	.6	3.2
Transportation equipment	2.2	.9	3.6	1.2	1.0	3.0
Motor vehicles only	1.8	.9	3.2	1.0	.9	2.7
Total, durable goods	2.8	.6	3.8	1.8	.7	3.4
Food and kindred products	4.6	1.7	6.4	3.3	2.2	6.3
Textile mill products and apparel	3.9	1.1	5.2	3.2	1.2	5.4
Paper and allied products	2.2	.5	2.9	1.4	.6	2.8
Chemicals, petroleum, and related products	1.4	.3	1.8	.8	.4	1.7
Total, nondurable goods	3.4	.9	4.5	2.5	1.2	4.5
TOTAL	3.1	.7	4.1	2.1	.9	3.8

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings, vol. 26, no. 3 (Washington, D.C.: March 1979), Table D-2.

TABLE XV-9. HOURS AND EARNINGS FOR PRODUCTION WORKERS IN MANUFACTURING, SELECTED MICHIGAN LABOR MARKET AREAS: 1976-1978

Area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	1976	1977	1978	1976	1977	1978	1976	1977	1978
Ann Arbor	$318.60	$363.67	$390.05	43.6	44.6	44.4	$ 7.29	$ 8.15	$ 8.79
Battle Creek	283.57	306.19	336.99	41.7	41.4	41.8	6.81	7.40	8.06
Bay City	310.01	347.52	330.21	47.6	48.1	43.3	6.51	7.23	7.63
Benton Harbor	229.31	252.24	272.16	41.2	41.7	41.5	5.57	6.05	6.56
Detroit	310.44	349.78	381.23	42.9	43.5	43.5	7.23	8.04	8.78
Flint	344.05	391.53	410.57	45.7	46.6	45.7	7.52	8.40	8.98
Grand Rapids	229.55	256.26	273.90	40.7	41.6	41.4	5.64	6.16	6.62
Jackson	244.93	272.56	308.04	40.9	41.9	43.3	5.99	6.51	7.11
Kalamazoo-Portage	254.64	279.17	297.37	41.4	41.5	41.0	6.15	6.73	7.25
Lansing-East Lansing	314.37	304.51	357.56	43.9	43.7	42.1	7.16	7.79	8.49
Muskegon-Muskegon Heights-Norton Shores	244.89	270.90	292.49	41.3	42.0	41.5	5.93	6.45	7.05
Saginaw	344.13	388.82	418.84	44.4	45.7	45.3	7.75	8.51	9.25
Upper Peninsula	199.72	204.26	224.32	40.3	39.6	40.2	4.96	5.16	5.58
Michigan	290.97	326.27	349.50	42.7	43.3	43.0	6.81	7.54	8.13

SOURCE: Michigan Employment Security Commission, special release.

NOTE: Dollar figures include cash earnings, before payroll deductions, and exclude fringe benefits such as company paid health and welfare premiums and employer contributions to Social Security Trust Funds.

TABLE XV-13. LABOR TURNOVER RATES IN MANUFACTURING IN THE DETROIT, FLINT, GRAND RAPIDS, AND LANSING-EAST LANSING LABOR MARKETS: 1978

Area	Accessions			Separations		
	New hires	Recalls	Total	Quits	Layoffs	Total
Detroit	1.7	.5	2.6	1.2	.9	2.5
Flint	1.1	.2	1.9	.5	.5	2.0
Grand Rapids	2.7	.5	3.7	1.6	.7	3.1
Lansing-East Lansing	1.9	.3	2.5	.7	.5	2.0

SOURCE: Michigan Employment Security Commission, special release.

TABLE XV-14. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS, AND VALUE ADDED IN MANUFACTURING ESTABLISHMENTS IN STANDARD METROPOLITAN STATISTICAL AREAS, LARGE INDUSTRIAL COUNTIES, AND SELECTED CITIES: 1976

Area	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c]
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Standard Metropolitan Statistical Area				
Ann Arbor	666.0	56.9	465.5	1,334.9
Battle Creek	358.8	33.6	243.9	929.5
Bay City	152.6	16.3	109.9	272.5
Detroit	9,325.1	696.6	5,292.0	15,427.9
Grand Rapids	969.7	115.0	646.5	2,082.4
Jackson	200.7	21.2	129.2	438.2
Kalamazoo-Portage	517.8	45.6	298.6	1,138.9
Lansing-East Lansing	651.6	64.4	502.7	1,298.0
Muskegon-Norton Shores Muskegon Heights	281.3	29.1	186.8	556.9
Saginaw	618.0	56.3	473.7	1,325.3
Toledo	1,287.6	122.2	839.9	2,903.2
County				
Allegan	90.3	12.4	62.4	235.4
Bay	152.6	16.3	109.9	272.5
Berrien	301.5	32.3	196.7	650.1
Clahoun	320.4	29.1	216.7	853.5
Ingham	525.8	48.5	412.7	1,019.6
Jackson	200.7	21.2	129.2	438.2
Kalamazoo	461.2	36.5	259.1	1,021.9
Kent	753.7	86.2	500.0	1,590.2
Lenawee	145.0	16.0	102.7	336.8
Macomb	1,729.1	126.3	889.0	2,644.0
Monroe	128.8	12.3	85.4	267.3
Muskegon	280.9	29.0	186.5	549.3
Oakland	1,447.2	121.4	887.9	2,774.7
Ottawa	216.0	28.8	146.6	492.2
Saginaw	618.0	56.3	473.7	1,325.3
St. Clair	94.9	10.6	60.5	211.4
St. Joseph	91.3	13.2	64.0	242.3
Shiawassee	66.7	9.3	47.0	115.7
Van Buren	56.6	9.1	39.5	117.1
Washtenaw	666.0	56.9	456.5	1,334.9
Wayne	5,988.3	430.3	3,414.0	9,665.2

TABLE XV-14. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS, AND VALUE ADDED IN MANUFACTURING ESTABLISHMENTS IN STANDARD METROPOLITAN STATISTICAL AREAS, LARGE INDUSTRIAL COUNTIES, AND SELECTED CITIES: 1976 (cont.)

Area	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c]
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Place with 20,000 or more employees				
Detroit	2,704.3	223.1	1,729.4	5,052.9
Grand Rapids	384.8	44.4	243.2	774.2
Lansing	506.4	46.4	398.6	977.6
Livonia	392.8	33.5	262.8	704.6
Warren	1,151.2	69.6	533.2	1,456.1

SOURCE: Bureau of the Census, Annual Survey of Manufactures 1976, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1978), M76 (AS)-6, East North Central Section, Table 2.

NOTE: Data for the Flint SMSA are withheld to avoid disclosure of the operations of a single company.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when employee was not at the plant.

c. Adjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales) and adjusting for the net change in finished goods and work in process inventories during the year.

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY AND BY EMPLOYMENT SIZE CLASS: 1967 AND 1972 (cont.)

County	Employment size class								Total establishments	
	1-19		20-99		100-249		250 and over			
	1967	1972	1967	1972	1967	1972	1967	1972	1967	1972
Manistee	31	23	5	8	7	8	3	2	46	41
Marquette	56	48	9	10	3	3	2	0	70	61
Mason	32	27	12	18	6	6	2	1	52	52
Mecosta	18	16	11	6	2	1	2	2	33	25
Menominee	67	51	21	23	5	6	1	1	94	81
Midland	24	25	8	8	3	3	4	5	39	41
Missaukee	10	8	0	0	0	0	0	0	10	8
Monroe	82	78	26	29	10	9	6	7	124	123
Montcalm	40	42	12	10	2	3	5	5	59	60
Montmorency	26	25	2	2	0	1	1	1	29	29
Muskegon	138	140	64	54	19	20	24	20	245	234
Newaygo	27	25	6	4	0	1	2	2	35	32
Oakland	1,010	1,222	443	502	88	86	35	29	1,576	1,839
Oceana	16	22	10	11	1	0	0	0	27	33
Ogemaw	20	25	5	7	0	1	0	0	25	33
Ontonagon	29	7	1	2	2	0	0	0	32	9
Osceola	20	22	5	4	2	3	4	2	31	31
Oscoda	23	25	0	3	0	0	0	0	23	28
Otsego	21	22	1	4	0	0	2	2	24	28
Ottawa	162	191	72	86	27	27	18	17	279	321
Presque Isle	21	21	5	2	0	0	0	0	26	23
Roscommon	26	19	2	2	0	1	0	0	28	22
Saginaw	152	141	68	55	15	22	17	11	252	229
St. Clair	130	134	45	51	16	17	8	9	199	211
St. Joseph	66	78	44	54	19	18	8	5	137	155

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY AND BY EMPLOYMENT SIZE CLASS: 1967 AND 1972 (cont.)

County	Employment size class								Total establishments	
	1-19		20-99		100-249		250 and over			
	1967	1972	1967	1972	1967	1972	1967	1972	1967	1972
Sanilac	46	53	19	15	4	7	4	4	73	79
Schoolcraft	24	19	2	1	1	1	0	0	27	21
Shiawassee	55	48	21	19	6	14	7	3	89	84
Tuscola	43	41	18	17	5	3	2	3	68	64
Van Buren	76	63	27	35	9	11	6	4	118	113
Washtenaw	183	204	66	62	17	20	23	20	289	306
Wayne	2,666	2,470	1,124	971	235	183	197	179	4,222	3,803
Wexford	32	31	14	14	4	7	2	2	52	54
TOTAL	9,183	9,450	3,622	3,549	869	860	666	604	14,340	14,463

SOURCE: Bureau of the Census, U.S. Census of Manufactures, 1967, Area Series, Michigan (Washington, D.C.: 1970), MC67(3)-23, Table 9; and Bureau of the Census, U.S. Census of Manufactures, 1972, Area Series, Michigan (Washington, D.C.: 1975), MC72(3)-23, Table 9.

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in manufacturing			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Genesee	60.77	1,781,623	62.25	2,171,079
Midland	63.43	297,904	56.57	310,686
Macomb	54.57	1,773,628	56.11	2,171,338
Saginaw	53.08	712,535	55.29	847,216
St. Joseph	53.01	114,730	54.24	131,564
Lenawee	50.73	181,414	50.47	203,668
Ottawa	48.49	269,866	49.39	326,162
Berrien	49.20	389,902	49.16	444,523
Manistee	47.18	34,775	47.51	40,579
Wayne	45.96	7,835,324	47.49	9,055,708
Muskegon	46.76	334,096	47.08	371,868
Hillsdale	43.93	58,098	45.45	69,454
Washtenaw	41.40	731,183	44.96	923,024
Barry	47.74	50,340	44.73	49,195
Calhoun	43.77	351,952	44.55	392,196
Osceola	42.01	20,111	44.25	24,220
Montcalm	41.55	61,504	44.10	74,597
Cass	42.86	52,714	43.70	60,796
Menominee	43.34	31,676	43.25	34,966
Allegan	40.13	73,395	42.56	89,877
Kalamazoo	41.42	486,903	42.07	557,372
Charlevoix	37.34	23,756	41.59	30,778
Ionia	38.18	52,252	41.32	65,079
Monroe	38.96	141,609	41.10	171,094
Baraga	32.19	7,593	39.98	10,306
Antrim	38.35	14,263	39.34	17,084
Bay	37.43	176,533	38.35	206,346
Kent	37.16	872,534	37.95	1,016,777
Jackson	35.98	255,474	36.99	294,074
Delta	37.17	54,474	36.77	56,812
Alger	35.52	8,461	36.50	9,467
Shiawassee	36.32	67,024	36.49	73,707
Mason	35.59	29,933	36.34	34,106
Ingham	34.31	675,581	35.95	801,243
Gratiot	36.09	58,539	35.79	63,038

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY AND BY EMPLOYMENT SIZE CLASS: 1967 AND 1972

County	Employment size class								Total establishments	
	1-19		20-99		100-249		250 and over			
	1967	1972	1967	1972	1967	1972	1967	1972	1967	1972
Alcona	19	18	0	1	1	1	0	0	20	20
Alger	18	17	3	2	1	1	1	1	23	21
Allegan	76	85	22	32	13	13	4	7	115	137
Alpena	32	35	5	5	4	2	3	3	44	45
Antrim	23	23	7	3	3	4	0	1	33	31
Arenac	13	10	3	5	0	1	1	1	17	17
Baraga	40	35	6	5	1	2	1	0	48	42
Barry	27	29	8	6	1	4	3	3	39	42
Bay	116	103	33	30	14	18	8	4	171	155
Benzie	9	11	8	8	1	2	0	0	18	21
Berrien	202	225	77	78	30	25	26	26	335	354
Branch	37	44	15	21	6	8	4	3	62	76
Calhoun	112	120	52	52	14	12	18	18	196	202
Cass	39	57	25	25	6	6	2	2	72	90
Charlevoix	24	28	6	8	4	4	4	3	38	43
Cheboygan	26	28	7	6	1	2	1	1	35	37
Chippewa	31	26	4	3	0	0	0	0	35	29
Clare	19	28	5	6	0	1	1	0	25	35
Clinton	24	28	6	7	3	4	1	1	34	40
Crawford	9	12	3	1	0	0	1	1	13	14
Delta	76	53	15	14	2	0	3	2	96	69
Dickinson	50	43	11	10	2	5	1	1	64	59
Eaton	47	63	22	17	3	5	2	2	74	87
Emmet	20	19	7	7	2	2	0	0	29	28
Genesee	198	207	66	60	11	8	11	11	286	286

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY AND BY EMPLOYMENT SIZE CLASS: 1967 AND 1972 (cont.)

County	Employment size class								Total establishments	
	1-19		20-99		100-249		250 and over			
	1967	1972	1967	1972	1967	1972	1967	1972	1967	1972
Gladwin	7	17	3	6	1	0	0	1	11	24
Gogebic	46	40	8	5	3	4	0	0	57	49
Grand Traverse	33	43	14	19	5	2	3	5	55	69
Gratiot	26	26	10	14	2	2	6	5	44	47
Hillsdale	48	47	16	21	6	9	2	5	72	82
Houghton	45	46	12	8	1	1	0	0	58	55
Huron	40	40	18	12	3	4	1	1	62	57
Ingham	159	151	48	58	20	17	12	9	239	235
Ionia	46	42	17	20	4	4	5	5	72	71
Iosco	26	26	6	8	2	2	0	0	34	36
Iron	37	34	2	2	0	0	0	0	39	36
Isabella	20	22	5	7	2	0	0	1	27	30
Jackson	195	185	82	75	13	22	20	14	310	296
Kalamazoo	155	183	84	79	33	26	25	26	297	314
Kalkaska	10	10	2	1	0	0	0	0	12	11
Kent	552	542	239	239	57	71	47	39	895	891
Keweenaw	6	5	0	1	0	0	0	0	6	6
Lake	10	11	1	2	0	0	0	0	11	13
Lapeer	34	37	12	15	9	7	1	1	56	60
Leelanau	11	18	4	2	0	0	0	0	15	20
Lenawee	98	91	43	45	14	12	11	12	166	160
Livingston	55	65	36	37	6	10	0	1	97	113
Luce	25	23	1	2	0	0	0	0	26	25
Mackinac	22	25	0	0	0	0	0	0	22	25
Macomb	818	1,007	375	371	57	55	52	51	1,302	1,484

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in manufacturing			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Alpena	36.07	46,419	35.57	51,384
Newaygo	35.89	27,208	34.67	23,461
Wexford	30.99	26,424	34.37	35,133
Branch	32.82	56,149	34.24	61,794
Sanilac	29.77	34,423	34.20	44,711
Oakland	32.65	1,781,622	34.09	2,231,531
Van Buren	34.55	55,828	33.26	89,846
Eaton	30.58	44,062	32.66	53,952
Montmorency	28.15	4,121	29.63	5,136
St. Clair	29.49	127,753	28.91	142,814
Arenac	22.85	7,316	27.59	10,284
Lapeer	25.90	43,633	26.55	50,102
Crawford	26.03	6,676	26.24	7,491
Cheboygan	11.60	13,815	25.81	16,048
Livingston	23.64	40,282	25.76	51,100
Clinton	22.19	19,549	24.98	25,483
Tuscola	21.74	33,254	23.62	40,264
Dickinson	21.52	24,598	22.59	29,027
Otsego	20.48	11,328	21.47	13,769
Oscoda	19.07	2,082	21.43	2,652
Ogemaw	21.87	7,853	20.57	8,141
Huron	17.28	21,325	19.81	27,014
Benzie	21.94	5,945	19.78	6,249
Gladwin	17.58	5,041	18.71	6,108
Alcona	14.24	1,947	18.01	2,862
Gogebic	21.60	10,787	17.60	9,503
Oceana	16.28	6,216	16.61	7,566
Schoolcraft	14.91	3,911	16.27	4,702
Grand Traverse	16.20	38,229	16.15	44,182
Clare	14.74	6,116	15.96	7,539
Roscommon	11.77	8,518	15.56	5,397
Iron	14.03	5,290	15.45	6,384
Mecosta	16.52	13,368	14.95	13,345
Emmet	11.82	10,282	14.22	14,018
Ontonagon	11.39	5,598	13.87	6,833

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in manufacturing			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Keweenaw	11.74	507	12.17	584
Iosco	12.94	13,405	10.31	11,064
Isabella	7.75	12,284	9.91	17,421
Kalkaska	7.40	2,233	7.15	2,603
Missaukee	5.62	930	6.50	1,197
Leelanau	7.41	1,657	6.21	1,863
Luce	5.27	1,478	5.73	1,782
Houghton	5.67	5,530	5.51	5,927
Lake	3.73	427	4.57	572
Mackinac	4.39	1,441	3.87	1,396
Marquette	3.70	12,001	3.49	12,044
Presque Isle	3.04	1,106	3.26	1,297
Chippewa	1.91	2,388	3.05	3,692
Michigan	42.58	20,683,054	43.94	24,392,184
United States	25.91	271,550,000	26.25	305,747,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

TABLE XV-17. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN MANUFACTURING: 1976-1977

County	Percentage change 1972-1977	Percentage change 1976-1977	County	Percentage change 1972-1977	Percentage change 1976-1977
Chippewa	81	55	Bay	79	17
Roscommon	232	53	Kalkaska	62	17
Alcona	145	47	Kent	59	17
Isabella	176	42	Manistee	79	17
Arenac	275	41	Presque Isle	57	17
Baraga	14	36	Cheboygan	36	16
Emmet	60	36	Grand Traverse	105	16
Lake	- 52	34	Wayne	61	16
Wexford	104	33	Cass	57	15
Charlevoix	112	30	Jackson	41	15
Clinton	100	30	Keweenaw	- 45	15
Sanilac	46	30	Lapeer	72	15
Missaukee	617	29	St. Joseph	57	15
Huron	34	27	Berrien	28	14
Livingston	82	27	Kalamazoo	67	14
Oscoda	164	27	Mason	61	14
Washtenaw	90	26	Alger	54	12
Ionia	110	25	Crawford	213	12
Montmorency	41	25	Leelanau	38	12
Oakland	74	25	Lenawee	38	12
Branch	72	23	St. Clair	50	12
Clare	50	23	Alpena	51	11
Allegan	59	22	Calhoun	55	11
Eaton	75	22	Muskegon	47	11
Genesee	94	22	Menominee	64	10
Macomb	72	22	Shiawassee	42	10
Oceana	144	22	Gratiot	60	8
Ontonagon	39	22	Houghton	2	7
Otsego	50	22	Van Buren	30	7
Gladwin	27	21	Benzie	86	5
Iron	299	21	Delta	107	4
Luce	20	21	Midland	58	4
Monroe	59	21	Newaygo	50	4
Montcalm	68	21	Ogemaw	146	4
Ottawa	77	21	Marquette	42	0
Tuscola	53	21	Mecosta	41	0
Antrim	50	20	Barry	53	- 2
Hillsdale	71	20	Mackinac	51	- 3
Osceola	46	20	Gogebic	- 2	-12
Schoolcraft	75	20	Iosco	75	-17
Ingham	56	19			
Saginaw	76	19	Michigan	66	18
Dickinson	105	18	United States	56	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE XV-18. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1977

County	Percentage 1976	Percentage 1977	County	Percentage 1976	Percentage 1977
Genesee	58.94	60.61	Otsego	18.73	19.69
Saginaw	50.52	52.68	Tuscola	17.47	19.08
Macomb	47.20	48.17	Sanilac	16.05	18.87
Washtenaw	38.50	42.03	Dickinson	17.98	18.81
Wayne	40.26	41.84	St. Clair	18.73	18.18
Muskegon	40.70	41.41	Lapeer	17.01	17.33
Barry	44.95	41.16	Ogemaw	18.43	16.58
Berrien	41.02	40.92	Gladwin	17.01	16.52
Ottawa	39.93	40.75	Gratiot	14.38	15.24
Cass	37.92	40.67	Huron	12.03	14.66
St. Joseph	39.16	39.93	Iron	13.04	14.16
Hillsdale	37.85	38.95	Roscommon	9.91	13.71
Charlevoix	33.93	38.13	Emmet	10.33	12.65
Antrim	36.77	37.44	Keweenaw	(a)	12.17
Montcalm	35.65	36.81	Gogebic	16.77	12.02
Lenawee	37.03	36.70	Cheboygan	11.75	11.77
Menominee	34.62	34.77	Clare	9.99	10.69
Ingham	32.30	33.85	Iosco	12.54	9.91
Monroe	31.94	33.15	Grand Traverse	8.80	8.77
Bay	31.97	32.84	Isabella	6.02	8.28
Shiawassee	29.80	31.81	Oceana	7.53	7.18
Oakland	30.05	31.49	Ontonagon	6.74	6.91
Jackson	30.14	29.77	Mecosta	6.29	6.37
Eaton	27.24	29.23	Newaygo	5.10	6.01
Branch	27.47	28.95	Missaukee	4.34	5.17
Ionia	27.58	28.81	Luce	4.68	5.16
Kent	28.19	28.71	Alger	4.31	5.04
Arenac	22.03	26.36	Lake	(a)	4.57
Clinton	21.50	24.38	Schoolcraft	3.61	3.82
Crawford	24.30	23.93	Leelanau	3.85	3.31
Van Buren	24.02	23.59	Houghton	2.69	3.09
Manistee	22.61	23.36	Presque Isle	2.20	2.60
Calhoun	21.88	22.65	Mackinac	3.01	2.37
Alpena	22.93	22.49	Chippewa	1.11	2.23
Mason	22.47	22.29	Marquette	1.85	1.74
Montmorency	20.54	21.72	Midland	.72	.80
Livingston	20.13	21.71	Alcona	(a)	(a)
Delta	23.37	21.31	Benzie	(a)	(a)
Wexford	22.08	21.25	Kalkaska	(a)	(a)
Osceola	20.25	21.13	Oscoda	(a)	(a)
Baraga	16.81	20.74			
Allegan	19.75	20.36	Michigan	35.85	37.26
Kalamazoo	18.64	19.79	United States	16.37	16.79

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XV-19. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN NON-DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1977

County	Percentage 1976	Percentage 1977	County	Percentage 1976	Percentage 1977
Midland	62.71	55.77	Huron	5.25	5.15
Alger	31.21	31.47	Shiawassee	6.52	4.67
Newaygo	30.79	28.66	Tuscola	4.28	4.54
Manistee	24.56	24.15	Livingston	3.51	4.05
Osceola	21.76	23.12	Ogemaw	3.45	4.00
Kalamazoo	22.77	22.28	Dickinson	3.55	3.79
Allegan	20.38	22.20	Barry	2.79	3.56
Calhoun	21.89	21.90	Charlevoix	3.41	3.45
Gratiot	21.71	20.55	Eaton	3.34	3.43
Baraga	15.38	19.24	Cass	4.94	3.02
Delta	13.80	15.46	Washtenaw	2.90	2.93
Sanilac	13.72	15.33	Leelanau	3.57	2.89
St. Joseph	13.85	14.30	Oakland	2.59	2.61
Cheboygan	24.96	14.04	Saginaw	2.77	2.61
Mason	13.12	14.05	Houghton	2.98	2.42
Lenawee	13.69	13.76	Crawford	1.74	2.31
Wexford	8.91	13.12	Gladwin	.57	2.19
Alpena	13.14	13.09	Ingham	2.00	2.10
Ionia	10.60	12.51	Antrim	1.56	1.90
Schoolcraft	11.30	12.45	Roscommon	1.86	1.85
St. Clair	10.76	10.73	Otsego	1.75	1.78
Van Buren	10.53	9.67	Marquette	1.86	1.75
Oceana	8.75	9.43	Genesee	1.83	1.64
Kent	8.97	9.25	Isabella	1.73	1.63
Lapeer	8.89	9.22	Emmet	1.48	1.57
Ottawa	8.56	8.64	Mackinac	1.38	1.50
Mecosta	10.23	8.58	Missaukee	1.28	1.33
Menominee	8.71	8.48	Iron	.98	1.29
Berrien	8.18	8.24	Arenac	.82	1.23
Macomb	7.55	7.95	Chippewa	.80	.82
Montmorency	7.61	7.90	Presque Isle	.84	.66
Grand Traverse	7.40	7.37	Clinton	.69	.60
Montcalm	5.90	7.29	Luce	.59	.58
Jackson	5.84	7.21	Iosco	.40	.40
Ontonagon	4.65	6.96	Keweenaw	11.74	0
Monroe	7.03	6.94	Lake	(a)	0
Hillsdale	6.08	6.50	Alcona	(a)	(a)
Muskegon	6.06	5.67	Benzie	(a)	(a)
Wayne	5.70	5.65	Kalkaska	(a)	(a)
Gogebic	4.83	5.58	Oscoda	(a)	(a)
Bay	5.46	5.51			
Branch	5.35	5.29	Michigan	6.74	6.68
Clare	4.75	5.28	United States	9.54	9.46

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XV-20. SHIPMENTS OF IRON AND STEEL CASTINGS AND RAW STEEL FROM MICHIGAN FOUNDRIES AND STEEL WORKS: 1951-1977

(In thousands of short tons)

Year	Gray iron castings	Malleable iron castings	Steel castings	Steel
1951	2,101	264	141	4,829
1952	1,893	249	93	4,552
1953	2,331	268	80	5,142
1954	2,004	219	52	4,224
1955	2,668	300	63	5,999
1956	1,986	225	63	6,231
1957	1,923	226	51	6,220
1958	1,441	174	39	4,568[a]
1959	1,893	256	51	5,634[a]
1960	1,913	248	40	6,529[a]
1961	1,669	207	40	6,644[a]
1962	2,007	252	47	7,126[a]
1963	2,156	285	50	8,447[a]
1964	2,291	298	55	9,435
1965	2,721	353	58	8,990
1966	2,712	341	66	10,004
1967	2,203	309	55	9,247
1968	2,500	248	53	9,220
1969	2,632	359	57	10,039
1970	2,029	283	50	9,581
1971	2,374	352	42	9,069
1972	2,695	412	57	9,380
1973	2,863	436	67	10,945
1974	2,601	342	62	10,459
1975	2,131	300	53	9,093
1976	2,762	449	52	10,382
1977	3,113	399	45	10,051

SOURCE: Bureau of the Census, Facts for Industry, Series M21C (discontinued 1958), and Current Industrial Reports, Series M33A, Annual Summaries, 1958 through 1977 (Washington, D.C.: annually), Table 10 (1977).

a. Includes Wisconsin.

TABLE XV-21. MICHIGAN OIL REFINERIES: 1977

Company	Refinery location	Nominal capacity[a] bls. per day
Bay Refining, Division Dow Chemical Company	Bay City	17,000
Crystal Refining Company	Carson City	6,200
Lakeside Refining Company	Kalamazoo	5,600
Total Leonard, Inc. (Leonard Refineries, Inc.) Leonard Division	Alma	42,000
Marathon Oil Company	Detroit	65,000
Osceola Refining Company	West Branch	12,500
TOTAL REFINERY CAPACITY		148,300
Average daily amount of crude refined during 1975, all Michigan refineries		
Michigan crude		68,665
Crude produced elsewhere		61,168
TOTAL		129,833

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977 (Lansing: 1978), p. 53.

a. Individual refinery operating rates may be less or slightly more than nominal rates shown.

TABLE XV-22. NUMBER OF ACTIVE PRIMARY WOOD-USING PLANTS IN MICHIGAN: 1954, 1965, 1969, AND 1972

Kind of plant	1954[a]	1965	1969	1972
Pulpmills	11	10	9	9
Sawmills				
Large[b]	11	15	17	17
Medium[c]	85	107	103	109
Small[d]	1,296	266	187	157
TOTAL	1,392	388	307	283
Veneer mills				
Face, core, and specialty	4	4	6[e]	4
Container	19	8[e]	6	5
TOTAL	23	12	12	9
Charcoal	2	1	0	0
Miscellaneous	102	26	19	23[f]
GRAND TOTAL	1,530	437	347	324

SOURCE: U.S. Forest Service, Primary Forest Products Industry and Timber Use, Michigan, 1972 (St. Paul, Minnesota: 1975), Resource Bulletin, NC-24, Table 3.

a. Estimated.

b. Annual lumber productin in excess of 5 million board feet.

c. Annual lumber production from one million to 5 million board feet.

d. Annual lumber production less than one million board feet.

e. One mill classified as a container veneer mill in 1965 is now classified as a specialty veneer mill.

f. Includes one shingle mill, 6 log cabin plants, one particleboard plant, 4 treating plants, and 11 fence plants.

TABLE XV-23. PULPWOOD CONSUMPTION AND WOODPULP PRODUCTION AND CONSUMPTION IN MICHIGAN AND U. S. MILLS: 1963-1977

Year	Pulpwood consumption[a]				Woodpulp production[b]		Woodpulp consumption[b]	
	Softwood		Hardwood					
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1963	199,869	35,661,356	530,617	10,773,661	548,505	30,121,216	n.a.	30,219,885
1964	205,095	38,315,437	556,677	11,395,328	570,129	32,428,928	1,134,481	32,030,985
1965	232,696	39,676,054	628,869	12,294,203	605,596	33,993,069	1,203,186	34,006,285
1966	225,122	42,833,416	605,407	13,425,926	590,324	36,639,984	1,206,303	36,649,041
1967	207,807	42,219,242	595,806	13,553,275	575,937	36,660,048	1,174,397	37,049,675
1968	235,947	45,067,973	487,539	14,719,909	496,002	39,399,694	1,124,262	39,386,740
1969	162,558	48,904,661	618,505	16,112,001	588,945	43,416,138	1,324,904	44,009,761
1970	181,296	51,335,102	628,534	16,188,919	587,333	43,662,620	1,264,047	43,394,401
1971	157,163	50,932,446	598,105	16,568,196	572,620	43,932,681	1,204,573	44,182,674
1972	145,529	53,613,247	622,538	17,924,650	615,386	46,767,276	1,323,572	47,347,254
1973	110,019	54,768,368	622,893	18,513,673	593,157	47,936,719	1,398,627	48,697,592
1974	224,164	54,634,406	931,741	19,824,606	872,623	48,417,138	1,432,658	48,299,929
1975	204,555	48,932,368	648,046	16,488,703	648,895	43,247,697	1,080,832	42,391,995
1976	(C)	54,788,870	782,555	18,420,279	804,478	48,803,862	1,239,556	48,724,021
]977	(C)	55,509,963	834,234	]8,460,862	862,40]	49,032,269	],293,883	49,284,093

SOURCE: Bureau of the Census, Current Industrial Reports, Series M26A, Annual Summaries, 1963 through 1976 (Washington, D.C.: annually), Tables 4, 8, and 9 (1977).

a. Cords of 128 cubic feet, roughwood basis.

b. Short tons

c. Withheld to avoid disclosing figures for individual companies.

n.a.: not available.

TABLE XV-24. PAPER AND PAPERBOARD PRODUCTION IN MICHIGAN AND THE UNITED STATES: 1964-1977

(Short tons)

	Paper and board total	Paper				
		Coated printing and converting	Book	Packaging and industrial	Tissue[a]	Total
1964						
Michigan	2,157,777	219,320	181,599	n.a.	54,249	817,765
United States	41,747,591	2,620,252	1,990,093	n.a.	227,237	18,180,113
1965						
Michigan	2,288,003	234,703	190,264	n.a.	56,852	885,525
United States	44,090,976	2,826,232	2,110,055	n.a.	239,157	19,187,042
1966						
Michigan	2,579,745	244,104	199,414	n.a.	62,233	942,772
United States	47,189,295	3,078,190	2,367,675	n.a.	265,088	20,631,158
1967						
Michigan	2,212,997	211,927	129,213	n.a.	59,831	821,823
United States	46,892,610	3,085,735	2,260,259	1,157,560	252,116	20,703,268
1968						
Michigan	2,228,689	238,689	185,978	n.a.	56,478	910,065
United States	50,703,188	3,132,330	2,537,068	4,844,827	259,569	23,091,110
1969						
Michigan	2,304,522	247,310	179,299	95,079	50,653	948,912
United States	54,057,691	3,345,257	2,667,469	5,084,808	223,557	23,504,598
1970						
Michigan	969,109	298,226	134,346	97,191	48,853	954,633
United States	5,329,393	3,277,159	2,603,116	5,031,568	215,155	23,409,077

TABLE XV-24. PAPER AND PAPERBOARD PRODUCTION IN MICHIGAN AND THE UNITED STATES: 1964-1977 (cont.)

(Short tons)

	Paper and board total	Paper				
		Coated printing and converting	Book	Packaging and industrial	Tissue[a]	Total
1971						
Michigan	2,274,575	282,422	120,682	92,905	39,931	892,427
United States	55,091,530	3,250,694	2,758,214	5,014,903	218,894	23,837,840
1972						
Michigan	2,413,557	320,067	151,458	90,134	43,898	998,450
United States	59,457,076	3,545,830	3,010,018	5,199,134	228,034	25,435,338
1973						
Michigan	2,589,839	378,655	208,788	106,522	42,062	1,134,500
United States	61,683,838	3,829,821	3,142,354	5,112,304	240,492	26,535,949
1974						
Michigan	2,473,582	376,933	193,765	96,162	36,338	1,133,045
United States	59,934,461	3,977,527	2,831,562	5,360,480	220,923	26,861,445
1975						
Michigan	1,854,576	202,872	(b)	90,263	34,009	828,542
United States	52,359,215	3,327,976	2,401,131	4,383,973	177,202	23,294,793
1976						
Michigan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United States	60,043,429	4,063,497	2,973,781	5,040,962	193,214	26,534,322
1977						
Michigan	2,440,955	425,266	166,528	82,177	34,715	1,840,844
United States	61,868,977	4,188,745	3,069,566	5,161,515	194,384	27,491,035

SOURCE: Bureau of the Census, Current Industrial Reports, Series M26A, Annual Summaries, 1964 through 1976 (Washington, D.C.: annually), Tables 10 and 11 (1977).

a. Except sanitary and thin.
b. Withheld to avoid disclosing figures for individual companies.
n.a.: not available.

TABLE XV-25. WINE SHIPMENTS BY WINERY, AND BEER SHIPMENTS BY BREWERY, IN MICHIGAN: 1976-1978

Producer	1976	1977	1978
Winery shipments (gallons)[a]			
Boskydel	0	2,254.0	2,451.1
Bronte	130,233.2	113,477.9	106,246.5
Chateau Grand Traverse	0	1,984.1	15,997.9
Fenn	0	11,198.2	17,271.7
Fink	258.1	814.4	836.6
Frontenac	146,027.8	106,213.1	98,288.2
Lakeside	49,666.8	35,194.2	29,807.3
Leelanau-Omena	0	6,179.8	12,978.7
Milan	180,727.2	123,727.0	115,734.5
Holly Pitcher	0	0	0
St. Julian	172,640.9	172,321.0	144,077.9
Tabor Hill	17,953.0	17,353.2	27,168.9
Vendramino	0	1,638.8	8,065.5
Warner Vineyards	281,286.3	258,439.1	272,185.4
TOTAL	983,461.8	850,795.9	859,286.4
Brewery shipments (barrels)[a]			
Carling			
Sold in Michigan	435,575.27	419,928.0	352,352.0
Shipped out	206,020.14	209,137.0	186,861.0
Bottled and barreled	641,595.41	629,065.0	539,213.0
Geyer			
Sold in Michigan	6,154.21	3,816.0	3,295.0
Shipped out	45.72	238.0	48.0
Bottled and barreled	6,199.93	4,054.0	3,343.0
Stroh			
Sold in Michigan	794,540.88	729,316.0	673,360.0
Shipped out	4,681,368.37	5,083,178.0	5,534,898.0
Bottled and barreled	5,475,909.25	5,812,494.0	6,008,258.0
Stroh-Goebel			
Sold in Michigan	119,577.02	133,061.0	148,269.0
Shipped out	169,840.37	168,867.0	172,072.0
Bottled and barreled	289,417.39	301,928.0	320,341.0
TOTAL			
Sold in Michigan	1,355,847.38	1,286,121.0	1,177,275.0
Shipped out	5,057,274.59	5,461,420.0	5,693,880.0
Bottled and barreled	6,413,121.97	6,747,541.0	6,871,155.0

SOURCE: Michigan Liquor Control Commission, special release.

a. Withdrawals from bond.

TABLE XV-26. PRODUCTION OF CHLORINE GAS, SODIUM HYDROXIDE, AND NEW SULFURIC ACID IN MICHIGAN AND THE UNITED STATES: 1960-1977

(In thousands of short tons)

Year	Chlorine gas		Sodium hydroxide		New sulfuric acid	
	Michigan	United States	Michigan	United States	Michigan	United States
1960	516,782	4,636,939	562,473	4,971,860	324,318	17,085,190
1961	495,257	4,600,791	528,795	4,913,692	307,979	17,058,042
1962	512,877	5,142,876	546,791	5,442,890	331,901	19,701,063
1963	526,042	5,464,080	570,857	5,814,403	355,824	20,037,537
1964	568,718	5,945,215	619,923	6,388,987	347,386	21,959,065
1965	577,070	6,517,079	623,346	6,742,043	323,326	23,812,638
1966	593,522	7,204,372	653,731	7,616,346	346,669	27,413,530
1967	589,407	7,679,868	686,893	8,397,879	305,609	27,735,504
1968	601,412	8,444,459	672,156	8,867,713	246,570	27,403,538
1969	627,441	9,413,885	671,836	9,916,567	203,487	28,233,063
1970	583,095	9,763,702	610,705	10,140,988	169,000	28,259,900
1971	502,484	9,352,437	522,037	9,666,521	166,500	28,144,800
1972	509,564	9,873,371	528,375	10,217,400	132,200	29,924,000
1973	532,760	10,402,341	583,571	10,733,800	100,900	33,423,200
1974	562,781	10,753,109	613,493	11,188,519	96,900	32,233,600
1975	444,566	9,103,597	484,294	9,582,997	82,000	31,417,700
1976	431,738	10,378,432	471,657	10,516,090	n.a.	32,279,700
1977	366,508	10,573,014	408,092	10,932,772	n.a.	34,155,900

SOURCE: Bureau of the Census, Current Industrial Reports, Series M28A, Annual Summaries, 1960 through 1977 (Washington, D.C.: annually), Table 3 (1976 chlorine gas and sodium hydroxide data), and Current Industrial Reports, Series MA28A, Annual Sulfuric Acid Supplement, 1960 through 1976 (Washington, D.C.: annually), Table 4 (1976).

TABLE XV-27. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF WORKERS IN MACHINERY MANUFACTURING IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA: NOVEMBER 1974 AND JANUARY 1978

Occupation	November 1974		January 1978	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Machine tool operators, production, class A				
Automatic lathe	31	$ 6.04	14	$ 7.61
Drill press, radial	100	5.20	65	7.01
Drill press, single or multiple-spindle	72	5.25	37	7.41
Engine lathe	492	5.83	207	8.53
Grinding machine	1,805	6.20	1,177	8.38
Milling machine	654	6.09	450	7.71
Screw machine	n.a.	n.a.	35	7.39
Turret lathe, hand	408	5.77	211	7.40
Total	4,306	6.07	2,564	8.19
Machine tool operators, production, class B				
Automatic lathe	n.a.	n.a.	28	6.54
Engine lathe	145	5.17	105	6.36
Grinding machine	857	5.18	460	6.69
Milling machine	230	5.36	202	6.41
Turret lathe, hand	123	5.43	103	6.44
Total	2,890	5.46	2,069	7.01
Machine tool operators, production, class C				
Drill press, single or multiple-spindle	112	4.68	48	5.68
Engine lathe	n.a.	n.a.	35	4.85
Grinding machine	609	4.64	336	5.35
Milling machine	88	4.67	74	5.87
Total	1,575	4.42	864	5.48
Machine tool operators, production numerically controlled				
Automatic lathe	n.a.	n.a.	45	6.95
Total	214	6.29	225	7.14
Machine tool operators, Tool room (one type of machine)				
Drill press, radial	112	6.20	96	8.27
Engine lathe	260	6.60	195	8.76
Grinding machine	1,060	6.59	746	8.94
Milling machine	567	6.54	332	8.98
Total	2,927	6.68	1,825	8.94

TABLE XV-27. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF WORKERS IN MACHINERY MANUFACTURING IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA: NOVEMBER 1974 AND JANUARY 1978 (cont.)

Occupation	November 1974		January 1978	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Machine tool operators, tool room (more than one type of machine)	462	$ 6.37	270	$ 8.15
Assemblers				
Class A	753	6.15	696	7.80
Class B	2,568	5.60	1,658	7.23
Class C	1,292	5.13	448	6.22
Inspectors				
Class A	467	5.74	337	7.79
Class B	558	5.65	n.a.	n.a.
Class C	247	5.01	89	6.50
Laborers				
Material handling	455	4.81	167	6.94
Machinists				
Maintenance	117	6.54	n.a.	n.a.
Production	44	6.01	n.a.	n.a.
Maintenance				
Carpenters	19	6.41	26	8.67
Electricians	134	6.91	191	8.77
Mechanics	229	6.37	197	8.29
Janitor, porters, and cleaners	799	4.65	568	6.40
Polishing and butting machine operators	106	5.75	40	6.99
Punch press operators				
Class A	78	5.52	n.a.	n.a.
Class B	350	3.87	246	5.39
Set-up men, machine tools	442	5.88	307	7.28
Tool and die makers				
Jobbing	2,554	6.59	2,218	9.15
Other than jobbing	278	6.65	213	8.76
Tool clerks	178	5.44	163	7.13
Welders, hand				
Class A	383	5.73	539	7.59
Class B	453	5.00	463	6.96
Welders, machine				
Class A	n.a.	n.a.	n.a.	n.a.
Class B	32	5.74	n.a.	n.a.

SOURCE: Bureau of Labor Statistics, Industry Wage Survey: Machinery Manufacturing, Winter 1975-76, Bulletin 1929 (Washington, D.C.: 1977), Table 9; and Industry Wage Survey: Machinery Manufacturing January 1978, Bulletin 2022 (Washington, D.C.: 1979), Table 12.

TABLE XV-28. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF PRODUCTION WORKERS IN THE DETROIT STATISTICAL AREA IN SELECTED OCCUPATIONS IN ESTABLISHMENTS MANUFACTURING BASIC INDUSTRIAL CHEMICALS: JUNE 1971 AND JUNE 1976

Department and occupation	June 1971		June 1976	
	Number workers	Average hourly earnings[a]	Number workers	Average hourly earnings[a]
All production workers	3,147	$4.50	2,375	$6.32
Men	3,115	4.51	2,278	6.34
Women	32	4.13	97	5.87
Selected Occupations[b]				
Maintenance				
Maintenance workers, skilled[c]	737	$4.24	577	$6.83
Electricians, maintenance	79	5.08	60	6.83
Instrument repairmen	44	4.92	48	6.91
Machinists, maintenance	n.a.	n.a.	n.a.	n.a.
Mechanics, general	86	4.77	124	6.83
Mechanics, maintenance	69	4.98	n.a.	n.a.
Pipefitters, maintenance	122	4.97	78	6.86
Welders, hand, maintenance	56	4.83	55	6.86
Processing				
Chemical operators, Class A	341	4.59	292	6.55
Chemical operators, Class B	197	4.34	176	6.26
Chemical operators, helpers	124	4.07	n.a.	n.a.
Fillers	n.a.	n.a.	47	5.97
Pumpers	39	4.47	n.a.	n.a.
Inspecting and testing				
Laboratory assistants	n.a.	n.a.	n.a.	n.a.
Material movement and handling				
Laborers, material handling	91	4.26	73	6.01
Truckdrivers[c]	30	4.29	23	6.13
Other than semi or trailer	15	4.23	12	6.04
Power-truck operators[c]	133	4.22	67	6.06
Forklift	124	4.20	52	6.01
Stock clerks	n.a.	n.a.	n.a.	n.a.
Custodial				
Guards	33	4.13	n.a.	n.a.
Janitors	87	4.06	70	5.79

SOURCE: Bureau of Labor Statistics, Industry Wage Survey: Industrial Chemicals, June 1971, Bulletin 1968 (Washington, D.C.: 1973), Table 14; and Bureau of Labor Statistics, Industry Wage Survey: Industrial Chemicals, June 1976, Bulletin 1978 (Washington, D.C.: 1977), Table 10.

NOTE: Classification includes basic industrial chemicals (except industrial gases) and plastics materials, synthetic resins, and nonvulcanizable elastomers.

a. Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

b. All or virtually all workers are men and time-rated.

c. Include data for workers in classifications in addition to those shown separately.

XVI. THE AUTOMOTIVE ECONOMY

The quinquennial census of manufactures for 1905 introduced the chapter on automobiles with this paragraph:

> In five years the manufacture of automobiles in the United States has grown from an industry so unimportant that it was not reported separately at the census of 1900 to one with products valued at $26,645,064 at the census of 1905, which covered the calendar year 1904. This remarkable growth is not, like that of the bicycle, based on a fad, and so liable to as sudden a decline. Unlike the bicycle, the automobile is not essentially a new vehicle, but merely a carriage or truck with a new means of propulsion, possessing many advantages over a vehicle drawn by horses. As a means of amusement its popularity may fluctuate or decline, but its practical value has been so thoroughly demonstrated that its use will doubtless become more general each succeeding year, until it is displaced by some vehicle as much its superior as the automobile is the superior of the horse and wagon.

Farther on it is reported that

> the manufacture of automobiles was carried on in 13 states in 1900, and in 17 in 1905. At the census of 1905 Michigan, with 22 establishments, ranked first. New York stood second, with 21, and Ohio third, with 14. Massachusetts, with 11 establishments; Illinois and Indiana, with 8 each; Connecticut, with 7; California, Pennsylvania, and Wisconsin, with 6 each; and New Jersey, with 5, followed in the order named.
>
> Michigan, from which state no establishments were reported in 1900, held first rank in capital invested in 1905, the amount being $3,765,240. Connecticut, with $3,712,922, dropped from first place in 1900 to second in 1905. Ohio, with an increase of $3,475,662, more than fiftyfold, advanced from eighth rank to third; Massachusetts, with an increase of $1,148,345, from fifth to fourth; and Pennsylvania, with an increase of $1,155,863, nearly fourfold, from sixth to fifth. Wisconsin, with $1,240,006, and Indiana, with $1,140,509, both of which reported but 1 establishment in 1900, ranked sixth and seventh, respectively, in 1905. With the enormous general increase in the industry, it is surprising to note the following decreases: Illinois fell from second to eighth place, reporting a decrease of $596,358, or 61.2 per cent; and New Jersey, from third to ninth place, with a decrease of $452,239, or 59.3 per cent. Maryland reported $81,600 capital in 1900 and none at all in 1905. In 1900 Connecticut was the only state that reported a total capital in excess of

$1,000,000, while there were 8 states in this class in 1905.

The number of wage-earners increased from 2,241 in 1900 to 10,239 in 1905. At the census of 1900 Connecticut ranked first both in number of wage-earners and total wages paid. In number of wage-earners Illinois and Massachusetts followed, each having 303. In wages paid Illinois stood second, with $217,603, and Massachusetts third, with $188,098. New York stood fourth both in number of wage-earners and in wages paid, and New Jersey fifth. These 5 states reported a total of 1,990 wage-earners, receiving $1,168,331 in wages, 88.8 and 88.5 per cent, respectively, of the totals for the country.

In number of wage-earners in 1905 Ohio stood first, with 2,277, an increase of 2,191. Michigan followed, with 2,123. New York, with 1,624, an increase of 1,336, advanced from fourth to third in rank. Connecticut, with 1,065, fell from first to fourth place. Massachusetts, though reporting an increase of 649, fell from second to fifth place. Indiana, Pennsylvania, and Wisconsin followed in the order named. In amount of wages paid in 1905 the states ranked in the same order with a single exception, New York exchanging places with Michigan.

The inconsiderable number of women and children employed is noteworthy. This is due to the fact that the labor requires physical strength and a high degree of mechanical skill. In 1900 only 4 women were employed in the entire United States, 3 of whom were reported by New York. In 1905 the number had increased to only 11. In 1900 only 6 children were employed, and in 1905 but 32.

The census figures on production for the previous year indicated a total output of 21,692 vehicles, of which 9,095, or 42 percent, were made in Michigan.

The subsequent census of manufactures, for 1910, showed that 126,593 vehicles were assembled in 1909, of which 64,810, or 51 percent, were Michigan-made. The 1914 tally was 569,054, of which 443,072, or 78 percent, came from this state. The following tabulation appeared in the census of manufactures for 1915:

Class of vehicle and state	Number produced		
	1904	1909	1914
Touring cars			
Illinois	52	2,059	2,686
Indiana	387	6,838	13,034
Michigan	2,561	43,855	367,092
New York	397	5,440	5,945
Ohio	2,521	6,479	49,421
Wisconsin	--	--	8,825
Total	7,220	76,114	451,267

Class of vehicle and state	Number produced 1904	1909	1914
Runabouts			
Illinois	54	433	151
Indiana	230	8,139	1,431
Michigan	6,432	18,173	63,381
New York	1,082	1,097	1,037
Ohio	186	2,900	7,117
Total	12,131	36,204	81,603
All other varieties			
Illinois	47	470	282
Indiana	372	2,104	503
Michigan	30	1,855	6,610
New York	60	507	792
Ohio	100	4,114	2,010
Total	910	9,550	10,809
Total pleasure and family vehicles	20,261	121,868	543,679
Delivery wagons			
Illinois	--	447	23
Indiana	18	107	17
Michigan	51	401	1,295
New York	77	139	511
Ohio	--	469	1,025
Pennsylvania	--	242	1,275
Total	251	1,862	4,391
Trucks			
Illinois	--	28	1,072
Indiana	--	43	445
Michigan	51	372	4,684
New York	81	475	2,250
Ohio	1	202	7,598
Pennsylvania	--	--	771
Wisconsin	--	--	677
Total	160	1,366	19,551
All other vehicles			
Illinois	--	--	37
Indiana	13	22	18
Michigan	--	144	10
New York	111	406	521
Ohio	--	135	312
Pennsylvania	5	127	93
Total	1,020	1,497	1,433
Total business vehicles	1,431	4,725	25,375
Total, all classes	21,692	126,593	569,054

Data from various censuses show the following trend in motor vehicle production in Michigan and the United States:

Year	Passenger cars[a]		Commercial vehicles[b]	
	Michigan	United States	Michigan	United States
1914	437,083	543,916	5,989	25,375
1919	591,418	1,683,916	49,405	126,436
1921	440,818	1,406,257	32,465	105,857
1923	1,008,434	3,432,308	67,080	281,477
1925	1,279,718	3,581,240	125,542	341,811
1927	1,460,235	2,826,274	90,780	329,673
1929	1,594,926	4,388,315	82,201	391,593
1931	675,178	1,921,435	39,612	245,735
1933	n.a.	1,542,054	n.a.	215,216
1935	n.a.	3,219,756	n.a.	510,286
1935[c]	1,587,441	3,212,835	148,341	505,226

a. Passenger cars include taxi cabs and buses.
b. Including delivery trucks, truck tractors, hearses, ambulances, and fire trucks.
c. Passenger car figures exclude taxi cabs and buses. Commercial vehicle figures exclude truck tractors, hearses, ambulances, and fire trucks.
n.a.: not available.

The Bureau of the Census did not publish automotive assembly data for states subsequent to the 1935 figures. However, since the 1950s, annual assembly data for states have been assembled and released by trade publications (see Table XVI-3). Also, the Bureau of Business and Economic Research, Graduate School of Business Administration, Michigan State University, has received annual assembly data from the companies themselves, for each plant in this state, since 1972 (see Table XVI-4).

The following data on value added by manufacture and employment in motor vehicles, motor vehicle bodies, and motor vehicle parts have been assembled from various censuses. Value added by manufacture, essentially, is the value that the industry adds, after subtracting the cost of raw materials. The employment figures pertain to wage earners, not owners, officers, and salaried employees.

Year	Value added ($ millions)		Wage earners (number)	
	Michigan	United States	Michigan	United States
1899	n.a.	2.9	n.a.	2,241
1904	n.a.	16.9	2,735	12,049
1909	42.8	117.6	25,444	75,721
1914	179.1	276.6	67,538	127,092
1919	660.6	1,139.4	175,985	343,115
1921	353.2	758.4	110,386	212,777
1923	711.9	1,464.9	219,453	404,886
1925	944.7	1,750.5	234,492	426,110

Year	Value added ($ millions)		Wage earners (number)	
	Michigan	United States	Michigan	United States
1927	869.4	1,469.1	209,458	369,399
1929	823.2	2,002.2	214,368	447,448
1931	514.5	951.6	153,029	285,515
1933	401.9	650.8	151,200	243,614
1935	724.3	1,124.8	238,845	387,801
1937	938.0	1,506.9	297,477	479,341
1937[a]	n.a.	1,581.9	n.a.	511,333
1939	771.5	1,322.5	250,917	397,537
1939[a]	n.a.	1,304.4	n.a.	393,617
1947[b]	n.a.	3,819.1	n.a.	599,301
1947[c]	1,880.8	3,577.4	321,282	558,693

a. Revised; not comparable with data originally published.
b. Comparable with the 1939 data.
c. Excludes components of the industry that were included previously.
n.a.: not available.

The industry definition has been revised since 1947, making the data in Table XVI-10 incomparable with those shown above.

In 1965, Canada and the United States agreed to allow manufacturers of motor vehicles (essentially General Motors, Ford, Chrysler, American Motors, and the large truck manufacturers) to ship components and completed vehicles across the border, duty free, subject to certain restrictions. There has been a burgeoning trade between the two countries, as reflected in Tables XVI-12 and XVI-13. The very rapid increase in the volume of exports from Michigan is largely a result of Autopact (see Tables XXIV-1 and XXIV-2 in the chapter on international trade).

In most years, per capita sales of new domestic-make cars are greater in Michigan than any other state (Table XVI-17). Within Michigan, Oakland, Macomb, Wayne, Genesee, and Ingham counties are the top five in this regard (Table XVI-24). Usually, Michigan ranks near the bottom in import sales per capita (Table XVI-18). In these tabulations, Canadian production of U.S. domestic manufacturers is not considered as import. As a matter of fact, many of their components are made in Michigan.

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TABLE XVI-3. PASSENGER CAR AND TRUCK ASSEMBLIES IN THE UNITED STATES AND MICHIGAN: 1957-1978

(In thousands of units)

Year	Passenger cars		Trucks	
	United States	Michigan	United States	Michigan
1957	6,115	2,118	1,090	180
1958	4,244	1,239	871	153
1959	5,599	1,658	1,140	184
1960	6,703	2,092	1,198	203
1961	5,522	1,774	1,128	171
1962	6,943	2,280	1,254	228
1963	7,644	2,590	1,463	265
1964	7,745	2,622	1,561	385
1965	9,335	3,255	1,785	495
1966	8,605	3,024	1,764	515
1967	7,412	2,600	1,585	459
1968	8,849	3,009	1,951	511
1969	8,224	2,873	1,963	533
1970	6,550	2,099	1,717	454
1971	8,558	2,836	2,071	587
1972	8,828	2,908	2,476	733
1973	9,667	3,183	3,002	1,013
1974	7,310	2,222	2,694	900
1975	6,741	2,255	2,260	766
1976	8,538	2,915	2,993	1,042
1977	9,294	2,885	3,486	1,143
1978	9,153	2,565	3,727	1,299

SOURCE: Automotive News, Almanac Issue, 1958 through 1975, and Market Data Book Issue, 1976, 1977, 1978, and 1979, p. 34 (1979 issue, passenger car data); Ward's Communications, Inc., Wards Automotive Yearbook, 1958 through 1979 (Detroit: annually), p. 133 (1979 issue, truck data). Further reproduction not authorized without the express permission of Crain Automotive Group, Inc., and Ward's Communications, Inc.

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1953-1977

Year	United States	Canada	Japan	France	Germany	Italy	United Kingdom	Russia	Spain
1953	7,349,123	486,049	49,778	497,348	490,046	174,320	834,275	354,175	660
1954	6,536,729	352,109	70,073	600,040	680,509	216,715	1,037,879	403,873	620
1955	9,204,049	452,114	68,932	725,061	908,702	268,766	1,237,068	445,268	3,972
1956	6,918,759	471,350	111,066	827,079	1,075,603	315,802	1,004,544	464,632	4,500
1957	7,220,431	413,577	181,977	927,956	1,202,206	351,815	1,149,095	495,408	30,436
1958	5,121,269	356,418	188,303	1,127,549	1,495,221	403,560	1,364,407	511,074	31,050
1959	6,723,588	367,939	262,814	1,283,159	1,718,544	500,784	1,560,427	494,994	56,800
1960	7,905,117	397,739	481,551	1,369,210	2,055,127	644,633	1,810,700	523,591	58,209
1961	6,652,938	386,923	813,870	1,244,223	2,146,797	759,140	1,464,134	555,330	75,000
1962	8,197,311	505,187	990,706	1,536,133	2,356,594	946,793	1,674,530	577,500	100,163
1963	9,108,776	631,356	1,283,531	1,736,977	2,667,896	1,180,536	2,011,720	587,012	131,988
1964	9,307,860	670,990	1,702,475	1,615,896	2,909,657	1,090,078	2,332,376	603,100	178,128
1965	11,137,830	846,609	1,875,614	1,641,696	2,976,477	1,175,548	2,177,261	616,000	228,935
1966	10,396,299	872,214	2,286,399	2,024,552	3,050,708	1,365,898	2,042,354	675,300	340,418
1967	9,023,736	919,508	3,146,486	2,009,672	2,482,319	1,542,669	1,937,119	728,800	361,637
1968	10,320,410	1,150,218	4,085,826	2,075,617	3,106,958	1,660,370	2,225,122	800,700	393,433
1969	10,205,911	1,326,478	4,674,923	2,459,072	3,604,565	1,595,951	2,182,793	844,300	454,571
1970	8,283,949	1,159,504	5,289,147	2,750,086	3,842,247	1,854,252	2,098,498	922,000	536,026
1971	10,671,654	1,346,765	5,810,774	3,010,294	3,982,722	1,817,019	2,198,146	1,142,700	532,358
1972	11,310,708	1,430,084	6,294,438	3,328,320	3,815,982	1,839,793	2,329,430	1,379,000	695,217
1973	12,681,513	1,574,820	7,082,757	3,596,179	3,949,065	1,957,994	2,163,941	1,602,000	822,020
1974	10,072,662	1,524,874	6,551,840	3,462,847	3,099,777	1,772,515	1,936,685	1,846,000	837,414
1975	8,986,605	1,424,006	6,941,591	2,861,305	3,186,208	1,458,629	1,648,399	1,964,000	814,164
1976	11,497,391	1,640,112	7,841,447	3,402,715	3,868,089	1,590,677	1,705,506	2,025,000	866,240
1977	12,702,782	1,775,445	8,514,522	3,507,881	4,104,216	1,583,917	1,714,240	2,080,000	1,129,700

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1953-1977 (cont.)

Year	Poland	Belgium	Sweden	Yugo-slavia	East Germany	Czecho-slovakia	Nether-lands	Hungary	Austria	World
1953	--	1,786	29,427	--	--	19,298	--	--	3,038	10,498,265
1954	--	3,620	44,735	--	--	19,384	--	--	10,240	10,224,973
1955	17,000	1,625	50,299	--	36,438	24,183	--	--	18,080	13,742,690
1956	19,000	383	57,274	4,200	45,346	37,329	--	3,500	15,935	11,652,001
1957	21,000	320	71,654	7,200	51,078	48,359	--	4,000	13,910	12,528,380
1958	27,000	382	91,179	7,696	54,163	58,556	1,586	5,200	19,166	11,354,337
1959	34,500	343	112,394	8,658	67,341	66,662	6,812	4,900	20,187	13,870,486
1960	36,400	256	128,527	15,921	76,000	73,684	19,339	5,600	12,568	16,376,878
1961	35,990	800	131,755	21,254	84,200	77,053	18,592	6,400	13,484	15,209,493
1962	41,129	1,043	151,568	21,197	88,000	81,224	28,577	7,700	12,395	18,198,265
1963	48,388	1,200	167,850	28,898	94,000	70,781	22,362	6,000	10,078	20,711,023
1964	54,853	2,070	184,018	38,692	102,000	55,468	36,182	8,000	7,660	22,014,424
1965	59,800	166,594	205,717	45,452	118,056	90,713	36,047	7,131	5,044	24,542,083
1966	66,975	195,219	199,910	48,834	126,626	113,421	39,993	7,990	4,210	24,975,313
1967	68,359	183,087	214,560	55,641	134,101	133,174	56,749	8,250	3,729	24,167,203
1968	84,921	172,906	244,786	74,106	139,116	150,299	66,523	8,500	4,088	28,576,465
1969	101,800	302,549	271,440	94,983	147,680	158,582	71,659	9,000	5,417	39,029,284
1970	118,000	272,433	310,887	130,563	181,000	169,920	79,219	9,200	3,937	29,686,562
1971	145,700	295,764	317,295	132,368	158,000	176,862	91,312	9,500	6,878	33,681,561
1972	156,100	271,453	305,989	126,412	173,800	182,937	99,666	10,000	6,255	35,796,305
1973	190,400	298,957	378,042	143,826	175,000	197,805	107,452	10,500	6,278	39,159,751
1974	200,878	183,128	368,359	189,728	192,000	200,878	82,081	12,075	4,642	35,053,084
1975	258,300	222,176	366,753	205,567	200,000	211,073	72,098	12,100	7,699	33,265,240
1976	310,400	326,978	367,780	216,071	205,000	215,830	86,561	12,900	8,739	38,532,923
1977	374,000	336,382	286,901	257,762	209,000	198,571	87,853	13,313	8,177	41,118,611

SOURCE: Motor Vehicle Manufacturers Association of the United States, World Motor Vehicle Data (Detroit: 1979), pp. 11-13.

TABLE XVI-2. ASSEMBLY OF MOTOR VEHICLES IN CANADA AND THE UNITED STATES, BY STATE IN THE UNITED STATES: 1972-1978

State/country	1972	1973	1974	1975	1976	1977	1978
				Passenger cars			
Michigan	2,907,707	3,183,326	2,221,885	2,255,483	2,914,779	2,885,445	2,564,891
Missouri	849,013	1,035,442	828,984	643,923	797,196	979,198	1,106,650
Ohio	714,225	879,383	808,880	680,322	807,047	734,329	849,968
California	741,137	821,118	549,740	406,250	653,665	757,497	748,399
New Jersey	567,259	615,043	474,070	486,320	530,913	633,976	542,858
Illinois	414,796	382,170	352,463	244,783	146,172	378,122	542,487
Georgia	607,757	551,173	391,501	380,244	625,775	588,512	537,275
Delaware	401,647	389,416	272,617	239,180	407,832	414,668	495,978
Wisconsin	488,917	557,083	516,478	493,166	455,857	430,702	421,366
New York	198,084	181,913	137,084	98,301	146,219	261,441	276,989
Kansas	207,639	208,690	105,362	154,963	231,458	412,165	240,862
Maryland	197,651	252,762	211,617	219,836	277,882	224,850	230,280
Texas	204,101	239,348	188,977	209,959	260,911	220,553	213,620
Massachusetts	129,768	169,514	86,996	73,635	99,413	138,323	170,339
Kentucky	83,903	74,181	79,410	76,530	96,742	112,457	126,437
Minnesota	72,995	77,960	73,810	76,496	85,474	121,436	44,706
Pennsylvania	--	--	--	--	--	--	40,194
Virginia	41,095	48,596	9,281	--	--	--	--
Florida	--	--	--	1,193	424	--	--
Total United States	8,827,694	9,667,118	7,309,763	6,740,584	8,537,759	9,293,674	9,153,299
Canada	1,154,525	1,227,432	1,187,896	1,058,417	1,146,264	1,162,427	1,162,433

TABLE XVI-2. ASSEMBLY OF MOTOR VEHICLES IN CANADA AND THE UNITED STATES, BY STATE IN THE UNITED STATES: 1972-1978 (cont.)

State/country	1972	1973	1974	1975	1976	1977	1978
			Motor trucks				
Michigan	734,728	1,013,405	896,624	766,127	1,041,795	1,142,564	1,299,450
Ohio	419,259	437,629	471,338	429,320	478,818	561,471	589,033
Missouri	364,232	407,063	279,256	310,700	363,993	440,207	456,727
California	241,456	274,264	223,867	139,022	235,875	310,745	313,303
Kentucky	108,684	184,109	211,554	153,404	178,050	206,233	212,830
Virginia	41,373	53,354	60,393	54,777	92,561	205,393	202,671
Georgia	130,468	158,887	114,731	67,410	140,085	160,524	141,909
Maryland	109,784	134,567	90,157	94,971	123,806	113,887	120,395
Wisconsin	89,835	98,142	80,464	75,967	113,040	116,037	120,290
Indiana	98,153	108,197	103,925	79,597	100,920	96,217	73,710
New Jersey	63,131	64,247	54,432	42,925	57,505	73,655	70,764
Minnesota	23,021	25,974	24,591	11,848	21,513	2,069	62,758
Pennsylvania	24,589	31,755	25,229	21,726	20,030	27,055	30,431
Texas	--	2,416	1,202	1,332	15,841	12,364	11,652
Washington	--	--	4,160	2,746	3,571	6,575	7,200
Tennessee	--	--	4,320	2,851	2,628	5,123	5,600
Oregon	5,811	6,984	6,340	2,096	3,597	4,562	5,770
Utah	--	--	440	407	1,034	1,447	2,371
New York	2,299	2,838	3,129	1,636	1,752	262	--
Connecticut	1,290	--	1,363	--	--	--	--
Iowa	--	--	--	870	--	--	--
Total United States	2,475,786	3,002,098	2,693,676	2,259,576	2,993,063	3,486,390	3,726,869
Canada	319,879	347,388	375,954	390,939	500,560	612,456	656,059

SOURCE: Automotive News, Almanac Issue, 1963 through 1975, and Market Data Book Issue, 1976, 1977, 1978, and 1979, p. 34 (1979 issue, passenger car data); Ward's Communications, Inc., Wards Automotive Yearbook, 1973 through 1979 (Detroit: annually), p. 133 (1979 issue, truck data). Further reproduction not authorized without the express permission of Crain Automotive Group, Inc., and Ward's Communications, Inc.

TABLE XVI-4. PRODUCTION OF MOTOR VEHICLES IN MICHIGAN, BY PLANT: 1972-1978

	1972	1973	1974	1975	1976	1977	1978
Dearborn, Ford	221,175	255,012	292,633	165,854	159,503	141,768	232,326
Detroit, Cadillac	277,277	307,698	195,400	247,082	256,298	279,170	291,168
Detroit, Chevrolet[a]	--	—	12,085	13,289	31,155	31,547	38,059
Detroit, Chrysler, Jefferson Avenue[b]	220,237	202,302	123,605	37,922	88,605	94,483	43,001
Detroit, Chrysler, Jefferson Avenue T[b]	—	—	--	--	—	—	22,866
Detroit, Chrysler, Lynch Road	122,796	251,447	191,681	135,678	179,205	184,488	133,470
Flint, Buick	313,789	350,033	208,141	305,406	391,732	393,045	382,771
Flint, Chevrolet	212,717	362,850	302,068	306,459	426,164	394,952	432,238
Hamtramck, Chrysler	438,544	492,658	424,509	258,036	470,493	338,226	253,681
Kalamazoo, Checker	5,641	6,297	5,183	3,181	4,792	4,777	4,225
Lansing, Diamond Reo[c]	4,675	5,229	9,136	543	—	—	—
Lansing, Duplex[c]	273	570	307	225	—	—	—
Lansing, Oldsmobile	411,710	454,684	271,400	322,412	399,409	380,958	382,514
Pontiac, Pontiac	282,901	309,744	171,925	171,264	288,667	308,984	306,756
Pontiac, GMC	123,646	166,950	159,991	105,437	96,543	135,220	256,749
Warren, Chrysler	217,327	282,038	248,343	202,525	304,730	329,215	327,422
Wayne, Ford	158,932	140,909	188,201	236,247	279,098	278,329	271,662
Wayne, Ford truck	175,552	200,369	165,253	128,830	171,292	186,012	210,676
Wixom, Ford	141,663	183,927	116,404	126,650	149,379	190,572	173,964
Ypsilanti, GMAD	307,219	313,277	214,167	189,010	247,061	257,550	230,022
Total, car	2,901,884	3,267,988	2,403,249	2,248,742	2,914,242	2,852,350	2,705,560
Total, truck	734,190	1,019,721	897,183	757,308	1,029,884	1,076,946	1,288,010

SOURCE: The various companies.

NOTE: These totals may differ from those shown in Table XVI-3 as a result of different reporting criteria, such as assemblies versus shipments, inclusion of knocked-down-for-export in Table XVI-3, etc.

a. Chevrolet Division began assembling trucks here in 1974.
b. Converted from car to truck production for the 1978 model year.
c. Production ceased in 1975.

TABLE XVI-5. WHERE DOMESTIC PASSENGER CARS WERE BUILT: 1979 MODELS

Place	Models
United States	
	American Motors
Kenosha, Wisconsin	AMX, Concord, Pacer, Spirit
	Chrysler Corporation
Belvidere, Illinois	Omni, Horizon
Hamtramck, Michigan	Volare, Aspen
Lynch Rd., Detroit	Newport, New Yorker, St. Regis
Newark, Delaware	Volare, Aspen, Diplomat, LeBaron
St. Louis	LeBaron, Diplomat, Caravelle
Missouri	Voyager, Sportsman
	Ford Motor Company
Atlanta	Ford
Chicago	Thunderbird
Dearborn	Mustang, Capri
Kansas City	Fairmont, Zephyr
Lorain, Ohio	Cougar, LTD II, XR7, Club Wagon
Los Angeles	Ford, Thunderbird
Louisville	Ford
Mahwah, New Jersey	Granada, Monarch, Fairmont, Zephyr
Metuchen, New Jersey	Pinto, Bobcat
St. Louis	Mercury
San Jose, California	Mustang, Capri
Wayne, Michigan	Granada, Monarch, Versailles
Wixom, Michigan	Lincoln, Mark V
	General Motors
Arlington, Texas	Malibu, Monte Carlo, Cutlass
Baltimore	Malibu, Monte Carlo, LeMans
Detroit	Cadilac, Seville
Doraville, Georgia	Malibu, Monte Carlo, Cutlass
Fairfax, Kansas	Pontiac, Oldsmobile, Buick
Flint	LeSabre, Electra, Century, Rega
Framingham, Mass.	Century, Cutlass
Fremont, California	Malibu, Monte Carlo, Century
Janesville, Wisconsin	Chevrolet
Lakewood, Georgia	Grand Prix
Lansing	Oldsmobile, Cutlass
Leeds, Missouri	Malibu, Monte Carlo
Linden, New Jersey	Riviera, Toronado, Eldorado
Lordstown, Ohio	Sunbird, Monza, Skyhawk, Starfire
Norwood, Ohio	Camaro, Firebird

TABLE XVI-5. WHERE DOMESTIC PASSENGER CARS WERE BUILT: 1979 MODELS (cont.)

Place	Models
	General Motors (cont.)
Pontiac	Pontiac, LeMans, Grand Prix
St. Louis	Chevrolet, Corvette
South Gate, California	Chevrolet, Cadillac deVille
Tarrytown, New York	Nova, Skylark, Phoenix
Van Nuys, California	Camaro, Firebird
Willow Run, Michigan	Nova, Omega, Phoenix, Skylark
Wilmington, Delaware	Chevette, Acadian
	Volkswagen of America
Westmoreland, Pennsylvania	Rabbit
	Checker Motors
Kalamazoo, Michigan	Checker
Canada	
	Chrysler Corporation
Windsor, Ont.	Cordoba, Magnum
	Ford Motor Company
Oakville, Ont.	Ford, Club Wagon
St. Thomas, Ont.	Fairmont, Zephyr
	General Motors
Oshawa, Ont.	Chevrolet, Monte Carlo, Malibu, Pontiac, LeMans
St. Therese, P.Q.	Cutlass, Grand Prix
	Volvo
Halifax, N.S.	Volvo

SOURCE: Automotive News, 1979 Market Data Book Issue, 25 April 1979, p. 27.

NOTE: General Motors Assembly Division controls all GM plants except for the four home plants at Flint, Detroit, Pontiac, and Lansing for Buick, Cadillac, Pontiac, and Oldsmobile.

TABLE XVI-6. WHERE DOMESTIC TRUCKS WERE BUILT: 1979 MODELS

Place	Models
United States	
	General Motors
Baltimore	light Chevrolet and GMC trucks
Detroit	light Chevrolet and GMC trucks
Flint	light Chevrolet and GMC trucks
Fremont, California	light Chevrolet and GMC trucks
Janesville, Wisconsin	light Chevrolet and GMC trucks
Lakewood, Georgia	light Chevrolet and GMC trucks
Lordstown, Ohio	light Chevrolet and GMC trucks
Pontiac	light, medium and heavy Chevrolet and GMC trucks, buses
St. Louis	light Chevrolet and GMC trucks
	Chrysler Corporation
Warren, Michigan	light Dodge trucks
Missouri	light Dodge trucks
Jefferson	light Dodge trucks
	Ford Motor Company
Kansas City, Missouri	light trucks
Kentucky	medium, heavy and extra heavy trucks
Lorain, Ohio	light trucks
Louisville, Kentucky	light trucks
Mahwah, New Jersey	light trucks
Michigan	light trucks
Norfolk, Virginia	light trucks
Ohio	light trucks
San Jose, California	light trucks
Twin Cities	light trucks
	International
Fort Wayne, Indiana	light, medium heavy and heavy trucks
Springfield, Ohio	medium and medium heavy trucks
	Mack
Allentown, Pennsylvania	heavy Mack trucks
Hayward, California	heavy Mack trucks
Macungie, Pennsylvania	heavy Mack trucks
	White
Exton, Pennsylvania	heavy Autocar trucks
New River Valley, Virginia	heavy Autocar K and White trucks
Ogden, Utah	heavy Western Star (cab-over only), Autocar K and White trucks

TABLE XVI-6. WHERE DOMESTIC TRUCKS WERE BUILT: 1979 MODELS (cont.)

Place	Models
	Jeep
Toledo	light trucks
	AM General Corporation
South Bend, Indiana	military and postal vehicles
Canada	
	American Motors
Brampton, Ont.	light trucks
	Chrysler Corporation
Windsor, Ont.	light trucks
	Ford Motor Company
Oakville, Ont.	light and medium trucks
	General Motors
Oshawa, Ont.	light trucks
Scarborough, Ont.	light trucks
	International
Chatham, Ont.	medium trucks
	Mack
Oakville, Ont.	heavy trucks
	White
Kelowna, B.C.	heavy Western Star trucks

SOURCE: Automotive News, 1979 Market Data Book Issue, 25 April 1978, p. 27.

TABLE XVI-7. QUARTERLY TOTAL EMPLOYMENT BY CHRYSLER, FORD, AND GENERAL MOTORS IN MICHIGAN AND THE UNITED STATES: 1972-1978

(Average of three monthly figures)

Year	Chrysler		Ford[a]		General Motors	
	Michigan	United States	Michigan	United States	Michigan	United States
1972: 1	n.a.	130,391	111,596	208,733	238,836	558,895
2	n.a.	137,821	112,613	209,619	249,502	557,301
3	n.a.	137,615	110,403	203,499	227,203	509,572
4	n.a.	145,858	118,045	219,726	259,644	582,224
1973: 1	91,125	148,485	119,150	221,559	262,512	589,229
2	93,984	154,676	122,002	226,463	262,963	590,622
3	88,316	146,280	121,049	221,661	252,975	572,229
4	97,411	161,253	127,154	230,786	265,636	605,514
1974: 1	88,080	147,376	119,788	215,671	222,908	513,221
2	84,610	139,538	117,732	214,706	221,884	510,354
3	84,393	139,005	117,857	213,975	219,809	498,105
4	69,423	117,560	117,354	213,870	243,364	549,470
1975: 1	43,632	76,687	95,721	168,634	200,406	448,721
2	59,559	99,410	104,935	190,290	210,586	474,983
3	69,545	114,654	108,117	195,703	212,095	471,185
4	73,691	122,455	108,795	195,459	233,000	525,000
1976: 1	74,086	122,281	109,767	199,711	224,000	505,000
2	79,120	127,762	111,225	202,085	242,000	544,000
3	81,087	129,539	108,576	196,799	233,000	523,000
4	82,694	135,322	114,220	207,716	256,000	574,000
1977: 1	78,225	127,420	112,218	216,631	245,000	545,000
2	83,490	135,089	117,818	223,031	265,000	586,000
3	82,701	135,039	118,775	222,119	252,000	564,000
4	84,047	137,286	124,098	233,911	280,000	624,000
1978: 1	78,744	131,066	124,187	234,635	264,000	588,000
2	82,799	136,158	127,148	239,517	278,000	619,000
3	75,187	125,989	126,300	233,314	267,000	594,000
4	81,664	135,997	135,377	253,536	289,000	643,000

SOURCE: Data made available by the automobile companies.

a. Excludes Aeronutronic Ford and finance and insurance subsidiaries.

n.a.: not available.

TABLE XVI-8. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN SELECTED MICHIGAN AREAS: 1970-1978

(Thousands of dollars)

Year	Employees[a]	Earnings[b]	Purchases
	Northern Michigan Region		
Bay City			
1970	2,750	27,314	5,794
1971	3,651	41,041	6,240
1972	3,596	41,565	6,300
1973	3,824	48,313	7,400
1974	3,423	46,538	9,830
1975	3,006	46,662	5,720
1976	3,586	65,950	10,740
1977	3,805	79,979	13,254
1978	3,868	88,330	14,900
Flint			
1970	60,526	660,303	252,100
1971	69,521	845,338	286,000
1972	68,889	925,325	310,000
1973	73,946	1,083,576	429,000
1974	63,180	962,027	412,000
1975	59,572	1,014,131	479,600
1976	67,347	1,422,168	598,729
1977	73,562	1,715,752	696,111
1978	76,933	1,865,837	748,500
Grand Rapids			
1970	5,783	63,884	12,984
1971	6,916	80,266	8,390
1972	6,908	87,857	8,600
1973	7,417	104,622	10,400
1974	6,636	100,954	14,800
1975	6,030	97,383	19,812
1976	6,862	133,658	13,941
1977	7,353	156,518	13,880
1978	7,652	173,752	28,800
Kalamazoo			
1970	2,539	32,715	1,300
1971	2,833	34,782	1,400
1972	2,768	37,480	1,600
1973	3,099	46,037	2,300
1974	2,716	42,345	2,400
1975	2,682	48,998	2,120
1976	3,244	69,902	3,662
1977	3,668	83,858	6,471
1978	3,725	86,952	3,598

TABLE XVI-8. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN SELECTED MICHIGAN AREAS: 1970-1978 (cont.)

(Thousands of dollars)

Year	Employees[a]	Earnings[b]	Purchases
		Northern Michigan Region (cont.)	
Lansing			
1970	17,194	181,503	122,600
1971	21,777	273,967	111,600
1972	21,004	290,739	122,800
1973	21,808	332,922	130,800
1974	16,841	250,076	82,600
1975	16,928	287,412	93,700
1976	18,796	399,658	111,677
1977	20,558	471,868	147,711
1978	22,225	525,835	201,300
Saginaw			
1970	18,384	200,965	71,000
1971	23,284	293,209	119,000
1972	23,384	318,677	112,000
1973	24,565	379,148	140,700
1974	22,266	336,584	148,400
1975	19,969	343,241	91,700
1976	22,661	472,011	112,748
1977	24,307	565,624	146,289
1978	25,765	631,277	168,289
		Southern Michigan Region	
Adrian-Tecumseh			
1970	719	6,759	126
1971	832	8,800	126
1972	858	11,441	125
1973	981	13,822	135
1974	766	10,248	153
1975	825	13,707	152
1976	1,083	21,000	318
1977	1,255	26,300	1,400
1978	1,427	26,300	9,500
Livonia			
1970	5,692	55,928	53,500
1971	7,094	80,726	87,417
1972	7,461	92,706	91,000
1973	8,362	116,900	85,400
1974	6,441	92,600	123,200
1975	6,444	99,900	96,000
1976	8,188	149,200	149,100
1977	8,713	171,400	164,600
1978	8,793	171,300	201,500

TABLE XVI-8. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN SELECTED MICHIGAN AREAS: 1970-1978 (cont.)

(Thousands of dollars)

Year	Employees[a]	Earnings[b]	Purchases
	Southern Michigan Region (cont.)		
Milford[c]			
1970	1,150	13,000	829
1971	1,200	15,700	1,060
1972	1,415	20,000	1,150
1973	1,644	24,200	1,280
1974	1,727	26,300	2,150
1975	1,700[d]	25,435	2,450
1976	2,175	41,900	5,500
1977	2,386	48,200	4,000
1978	2,861	53,400	5,700
Pontiac			
1970	29,799	309,283	98,000
1971	33,904	414,754	98,399
1972	35,764	463,803	89,700
1973	38,343	540,902	106,740
1974	29,831	438,809	92,155
1975	25,238	410,200	84,200
1976	31,367	625,700	117,300
1977	33,220	733,900	161,700
1978	36,993	837,900	150,200
Ypsilanti			
1970	8,909	93,489	47,700
1971	10,996	133,665	64,905
1972	11,748	153,337	84,200
1973	12,333	178,337	97,500
1974	9,876	148,251	93,500
1975	9,710	154,525	91,900
1976	12,352	238,700	97,700
1977	14,691	300,900	139,300
1978	15,657	358,600	187,600

SOURCE: General Motors Corporation, special release.

NOTE: Separate figures are not available for the cities of Detroit and Warren because of the large number of people on temporary assignment, on the payroll of divisions scattered around the world.

a. Annual averages of monthly wage and salary jobs at GM facilities.

b. Does not include health insurance, pension contributions, supplemental unemployment benefits, unemployment insurance, and other fringe benefits.

c. For 1970-1975, figures pertain to permanent employees of the proving grounds. For 1976-1979, figures are estimates that include permanent employees and personnel from other divisions on temporary assignment.

d. Estimated.

TABLE XVI-9. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF WORKERS IN THE AUTOMOTIVE OPERATIONS OF THE FOUR MAJOR PASSENGER CAR MANUFACTURERS, BY SELECTED OCCUPATION, MICHIGAN AND THE UNITED STATES: DECEMBER 1973

Department and occupation	United States		Michigan	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Maintenance				
Carpenters	871	$ 6.46	513	$ 6.46
Electricians	8,581	6.65	3,907	6.65
Machine repairmen (maintenance mechanics)	7,905	6.65	4,287	6.64
Millwrights	7,597	6.48	3,819	6.48
Pipefitters	5,441	6.48	2,448	6.48
Sheet-metal workers (tinsmiths)	1,606	6.45	833	6.47
Toolroom				
Die sinkers, drop-forge dies	142	7.23	53	7.39
Machine-tool operators, toolroom	3,552	6.61	1,950	6.62
Patternmakers, metal and wood	878	7.40	605	7.40
Tool and die makers	17,440	6.79	9,225	6.79
Custodial, material movement, and plant clerical				
Checkers, receiving and shipping	5,964	5.31	3,225	5.30
Janitors, porters, and cleaners	10,893	5.00	5,357	5.00
Laborers, material handling	8,660	5.19	4,306	5.18
Truckers, inside, gas and electric	21,924	5.25	11,732	5.25
Truckdrivers, outside (semi)	1,626	6.11	1,382	6.12
Truckdrivers, outside (other than semi)	699	5.31	414	5.31
Other selected occupations				
Assemblers, major	104,590	5.29	42,107	5.29
Assemblers, minor	12,726	5.21	7,794	5.22
General foundry laborers	3,024	5.24	1,856	5.29
Heat treaters, furnace (control men)	424	5.39	209	5.39
Heat treaters, furnace (load and unload)	1,261	5.27	686	5.28
Inspectors, final	12,161	5.44	5,054	5.43
Inspectors, floor	7,885	5.41	4,422	5.40
Inspectors, general	15,929	5.32	8,171	5.32

TABLE XVI-9. NUMBER AND AVERAGE STRAIGHT-TIME HOURLY EARNINGS OF WORKERS IN THE AUTOMOTIVE OPERATIONS OF THE FOUR MAJOR PASSENGER CAR MANUFACTURERS, BY SELECTED OCCUPATION, MICHIGAN AND THE UNITED STATES: DECEMBER 1973 (cont.)

Department and occupation	United States		Michigan	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Other selected occupations (cont.)				
Inspectors and checkers, production	2,923	$ 5.33	1,834	$ 5.32
Machine-tool operators, production	28,447	5.31	15,971	5.32
Bar stock screw-machines	1,192	5.52	370	5.54
General (except set-up men)	17,490	5.27	8,904	5.30
Special (except set-up men)	9,765	5.34	6,697	5.34
Metal finishers	3,413	5.48	1,517	5.48
Molders, machine	602	5.50	305	5.50
Punch-press operators (except set-up men)	25,824	5.33	15,031	5.33
Body stampings	11,627	5.36	7,024	5.37
General	11,838	5.29	6,129	5.28
Heavy	2,359	5.36	1,878	5.37
Sewing-machine operators	5,441	5.28	4,943	5.28
Sprayers, body, fender, and hood	4,364	5.46	1,596	5.48
Trimmers	4,781	5.41	1,732	5.40
Welders, hand	6,302	5.46	3,067	5.48
Welders, machine (resistance)	22,032	5.34	9,520	5.32
TOTAL 1973	611,428	5.54	305,568	5.56
1969	605,556	3.82	317,717	3.83
1963	460,798	2.90	231,265	2.92

SOURCES: Bureau of Labor Statistics, Industry Wage Survey, Motor Vehicles and Parts 1973-74, Bulletin 1912 (Washington, D.C.: 1976), Tables 1 and 2; Bureau of Labor Statistics, Industry Wage Survey, Motor Vehicles and Parts, April 1969, Bulletin 1679 (Washington, D.C.: 1971), Table 1; and Bureau of Labor Statistics, Industry Wage Survey, Motor Vehicles and Parts, April 1963, Bulletin 1393 (Washington, D.C.: 1964), Table 1.

NOTE: The survey included all automotive operations, including motor vehicle parts manufacturing, of the four major automobile companies, excluding the truck division of one firm, and the steel and glass operations of all companies, as well as plants engaged in producing tractors and industrial engines and all parts depots.

TABLE XVI-10. VALUE OF OUTPUT FROM AND NEW INVESTMENT IN FACTORIES CLASSIFIED IN THE MOTOR VEHICLES AND CAR BODIES, MOTOR VEHICLE PARTS AND ACCESSORIES, AND AUTOMOTIVE STAMPINGS INDUSTRIES IN MICHIGAN AND THE UNITED STATES: 1972-1977

Year	Value added in manufacturing			New capital expenditures		
	Michigan (0000)	United States (0000)	Michigan as a percentage of U.S.	Michigan (000)	United States (000)	Michigan as a percentage of U.S.
			Motor vehicles and car bodies			
1972	4,475.4	11,782.5	38.0	651.8	917.2	71.1
1973	5,442.4	13,666.0	39.8	537.0	805.9	66.6
1974	3,971.2	10,849.4	36.6	673.6	1,042.9	64.6
1975	4,191.9	10,441.0	40.1	432.4	655.7	65.9
1976	6,457.5	15,843.7	40.8	826.7	1,046.9	79.0
1977	7,201.0	18,671.9	38.6	(a)	1,807.7	(a)
			Motor vehicle parts and accessories			
1972	3,802.2	9,164.7	41.5	498.9	1,113.1	44.8
1973	4,394.7	10,641.3	41.3	432.6	1,033.6	41.9
1974	3,710.8	10,250.0	36.2	748.6	1,290.1	58.0
1975	3,817.1	9,986.3	38.2	561.6	1,114.4	50.4
1976	5,267.5	13,709.4	38.4	379.4	962.1	39.4
1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
			Automotive stampings			
1972	1,157.1	2,663.8	43.4	(a)	117.5	(a)
1973	1,371.8	3,141.3	43.7	(a)	171.5	(a)
1974	1,364.6	3,011.6	45.3	(a)	255.5	(a)
1975	1,229.4	2,872.4	42.8	(a)	215.5	(a)
1976	1,743.8	3,934.8	44.3	(a)	176.1	(a)
1977	1,938.1	4,642.0	41.8	103.5	285.3	36.3

SOURCE: Bureau of the Census, Census of Manufactures, 1972 Area Series, Michigan, MC72(3)-23 (Washington, D.C.: 1975), Table 5; Bureau of the Census, Annual Survey of Manufactures: 1973, General Statistics for Industry Groups and Industries, M73M73(AS)-1 (Washington, D.C.: 1975), Table 1, and similar documents for 1974, 1975, and 1976; Bureau of the Census, Annual Survey of Manufactures: 1973, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities, M73(AS)-6 (Washington, D.C.: 1976) Table 3, and similar documents for 1974, 1975, and 1976; Bureau of the Census, 1977 Census of Manufactures Automotive Stampings SIC 3465, Preliminary Report MC77-1-34D-5(P) (Washington, D.C.: 1979) Table 2; and Bureau of the Census, 1977 Census of Manufactures Motor Vehicles and Car Bodies, SIC3711, Preliminary Report MC77-1-37A-1(P) (Washington, D.C.: 1979), Table 2.

a. Data withheld to avoid the possibility of disclosing information for a single company.

n.a.: not available at press time.

TABLE XVI-11. AUTOMOTIVE EMPLOYMENT AS A PERCENTAGE OF TOTAL EMPLOYMENT IN NORTHERN MICHIGAN, SOUTHERN OUTSTATE MICHIGAN, AND SOUTHEAST MICHIGAN: 1977

Region	Automotive assembly and parts production	Total employment	Percentage[a]
Northern Michigan[a]	16,000	403,000	4
Southern Outstate[b]	186,000	1,390,000	13
Southeast[c]	404,000	1,988,000	20
Total	606,000	3,781,000	16

SOURCE: The Michigan State Economic Record (October 1978):5.

a. 49 northernmost counties.
b. 26 southern counties.
c. Lapeer, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties.

TABLE XVI-15. U.S. FRANCHISED DEALER NEW AND USED VEHICLE SALES: 1955-1978

(all figures rounded to nearest hundred)

Year	New cars	New Trucks	Used cars
1955	7,408,000	957,000	10,139,000
1956	5,844,000	927,000	8,902,000
1957	5,826,000	879,000	8,770,000
1958	4,289,000	731,000	7,805,000
1959	5,486,000	928,000	8,728,000
1960	6,142,000	925,000	8,808,000
1961	5,556,000	908,000	8,221,000
1962	6,753,000	1,068,000	8,863,000
1963	7,334,000	1,230,000	9,285,000
1964	7,617,000	1,352,000	9,393,000
1965	8,763,200	1,533,900	9,784,200
1966	8,377,400	1,613,600	9,294,800
1967	7,567,900	1,519,200	8,854,400
1968	8,624,800	1,805,400	9,040,100
1969	8,464,000	1,929,000	8,945,800
1970	7,115,500	1,746,100	8,296,300
1971	8,676,300	2,009,000	9,005,000
1972	9,321,500	2,530,600	9,384,000
1973	9,669,700	3,008,200	8,987,900
1974	7,448,900	2,586,600	7,666,100
1975	7,050,100	2,351,000	7,943,100
1976	8,606,600	3,043,900	9,056,900
1977	9,104,400	3,485,500	8,878,900
1978	9,308,000	3,913,900	8,766,900

SOURCE: Ward's Communications, Inc., Ward's 1979 Automotive Yearbook (Detroit: 1979),p. 149. Further reproduction not authorized without the express permission of Ward's Communications, Inc.

TABLE XVI-16. RANKING OF STATES ACCORDING TO TOTAL NEW CAR REGISTRATIONS PER 100,000 POPULATION: 1978

State	Registrations per 100,000 population 1977	1978	State	Registrations per 100,000 population 1977	1978
Michigan	7,203	7,288	Alabama	4,847	4,706
Nevada	6,188	6,593	Kansas	5,124	4,657
Maryland	6,185	6,206	North Carolina	4,736	4,630
Florida	5,552	6,124	South Carolina	4,506	4,607
Delaware	5,907	6,111	Iowa	4,836	4,586
Illinois	6,288	5,871	Rhode Island	4,490	4,567
Vermont	5,340	5,775	Wyoming	4,488	4,453
New Hampshire	5,861	5,710	Washington	4,274	4,443
New Jersey	5,900	5,677	New Mexico	4,382	4,438
Ohio	5,818	5,595	Arizona	4,117	4,380
Texas	5,604	5,556	Massachusetts	3,927	4,314
Minnesota	5,299	5,463	Nebraska	4,376	4,288
Connecticut	5,077	5,185	Utah	4,137	4,278
Tennessee	4,579	5,129	Mississippi	3,909	4,274
Indiana	5,292	5,092	Kentucky	4,212	4,200
Oregon	4,823	5,007	North Dakota	4,280	4,123
Pennsylvania	5,186	4,995	West Virginia	4,586	4,120
Wisconsin	4,996	4,988	Arkansas	3,893	4,037
California	4,672	4,986	New York	3,982	3,895
Virginia	4,964	4,979	District of Columbia	3,862	3,853
Hawaii	4,992	4,948	Montana	3,809	3,817
Missouri	4,982	4,918	Idaho	3,813	3,724
Maine	4,295	4,885	South Dakota	3,530	3,633
Georgia	4,999	4,842	Alaska	3,306	2,912
Colorado	4,622	4,814	Oklahoma	n.a.	n.a.
Louisiana	4,612	4,768	United States	5,069	5,087

SOURCE: Developed from Bureau of the Census, Current Population Reports, Series P-25, no. 799 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and R.L. Polk & Company, special release. Further reproduction is not authorized without the express permission of R.L. Polk & Company.

n.a.: not available.

TABLE XVI-17. RANKING OF STATES ACCORDING TO TOTAL DOMESTIC-MAKE NEW CAR REGISTRATIONS PER 100,000 POPULATION: 1978

State	Registrations per 100,000 population 1977	1978	State	Registrations per 100,000 population 1977	1978
Michigan	6,727	6,729	Mississippi	3,371	3,759
Illinois	5,643	5,269	Maine	3,215	3,749
Maryland	4,951	5,052	Rhode Island	3,597	3,736
Delaware	4,799	5,021	Nebraska	3,754	3,686
Ohio	5,189	5,020	Kentucky	3,685	3,684
Florida	4,529	5,010	Arkansas	3,440	3,592
Nevada	4,429	4,900	North Dakota	3,752	3,586
Texas	4,855	4,866	West Virginia	3,908	3,503
Minnesota	4,724	4,857	Massachusetts	3,107	3,477
New Jersey	4,808	4,658	New Mexico	3,345	3,465
Indiana	4,728	4,570	Wyoming	3,353	3,361
Wisconsin	4,454	4,426	Arizona	2,976	3,358
Tennessee	3,861	4,362	New York	3,340	3,335
Missouri	4,386	4,329	Colorado	3,058	3,217
Louisiana	4,076	4,250	South Dakota	3,132	3,177
Pennsylvania	4,368	4,212	Oregon	2,987	3,170
New Hampshire	4,243	4,161	California	2,859	3,166
Vermont	3,784	4,081	Utah	2,937	3,112
Iowa	4,329	4,071	District of Columbia	2,893	2,902
Georgia	4,068	4,014	Washington	2,640	2,820
Virginia	3,916	3,968	Montana	2,718	2,708
Alabama	3,991	3,966	Hawaii	2,565	2,626
Kansas	4,330	3,942	Idaho	2,561	2,549
Connecticut	3,770	3,906	Alaska	2,004	1,753
North Carolina	3,806	3,776	Oklahoma	n.a.	n.a.
South Carolina	3,622	3,768	United States	4,141	4,181

SOURCE: Developed from Bureau of the Census, Current Population Reports, Series P-25, no. 799 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

NOTE: Domestic makes include AMC, Chrysler, General Motors Canadian production, and captive imports of these companies from overseas.

n.a.: not available.

TABLE XVI-18. RANKING OF STATES ACCORDING TO TOTAL OVERSEAS-MAKE NEW CAR REGISTRATIONS PER 100,000 POPULATION: 1978

State	Registrations per 100,000 population 1977	1978	State	Registrations per 100,000 population 1977	1978
Hawaii	2,427	2,322	Rhode Island	893	831
Oregon	1,836	1,837	Georgia	931	828
California	1,813	1,820	Pennsylvania	818	783
Vermont	1,556	1,694	Tennessee	718	767
Nevada	1,759	1,693	Alabama	856	740
Washington	1,634	1,623	Kansas	794	715
Colorado	1,564	1,597	Texas	749	690
New Hampshire	1,618	1,549	West Virginia	678	617
Connecticut	1,307	1,279	Minnesota	575	606
Idaho	1,252	1,175	Illinois	645	602
Utah	1,200	1,166	Nebraska	622	602
Alaska	1,302	1,159	Missouri	596	589
Maryland	1,234	1,154	Ohio	629	575
Maine	1,080	1,136	Wisconsin	542	562
Florida	1,023	1,114	New York	642	560
Montana	1,091	1,109	Michigan	533	559
Wyoming	1,135	1,092	North Dakota	538	537
Delaware	1,108	1,090	Indiana	546	522
Arizona	1,141	1,022	Louisiana	536	518
New Jersey	1,092	1,019	Kentucky	527	516
Virginia	1,048	1,011	Iowa	507	515
New Mexico	1,037	973	Mississippi	538	515
District of Columbia	869	951	South Dakota	398	456
North Carolina	920	854	Arkansas	453	445
South Carolina	884	839	Oklahoma	n.a.	n.a.
Mssachusetts	820	837	United States	928	906

SOURCE: Developed from Bureau of the Census, Current Population Reports, Series P-25, no. 799 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

NOTE: Foreign makes do not include AMC, Chrysler, Ford, and General Motors Canadian production, or the captive imports of these companies from overseas.

n.a.: not available.

TABLE XVI-19. RANKING OF STATES ACCORDING TO TOTAL TRUCK REGISTRATIONS PER 100,000 POPULATION: 1978

State	Registrations per 100,000 population 1977	1978	State	Registrations per 100,000 population 1977	1978
Wyoming	4,620	5,024	Kansas	2,099	2,126
Montana	2,897	3,341	Tennessee	1,687	2,108
Nevada	2,731	3,213	Missouri	1,857	2,057
North Dakota	2,540	2,932	Washington	1,830	2,037
Idaho	3,048	2,905	Ohio	1,567	1,905
West Virginia	2,563	2,864	Alabama	1,847	1,865
New Mexico	2,594	2,850	Virginia	1,536	1,751
Oregon	2,600	2,814	Delaware	1,379	1,733
Arkansas	2,327	2,717	North Carolina	1,636	1,725
South Dakota	2,256	2,623	Wisconsin	1,909	1,710
Texas	2,400	2,550	Georgia	1,574	1,654
Kentucky	2,006	2,498	Pennsylvania	1,331	1,614
Utah	2,291	2,453	Florida	1,267	1,575
Nebraska	2,145	2,378	California	1,385	1,558
Indiana	1,988	2,341	Illinois	1,394	1,482
Vermont	2,005	2,273	South Carolina	1,322	1,469
Arizona	1,996	2,253	Maryland	1,243	1,374
Alaska	2,672	2,237	Connecticut	871	1,112
Maine	1,817	2,236	New Jersey	811	984
Colorado	1,985	2,222	Rhode Island	738	981
Michigan	1,901	2,212	Massachusetts	755	931
Mississippi	1,836	2,181	Hawaii	871	890
Minnesota	1,905	2,160	New York	685	794
New Hampshire	2,030	2,153	District of Columbia	246	288
Iowa	2,070	2,152	Oklahoma	n.a.	n.a.
Louisiana	1,885	2,151	United States	1,643	1,842

SOURCE: Developed from Bureau of the Census, Current Population Reports, Series P-25, no. 799 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

n.a.: not available.

TABLE XVI-12. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1962-1978

Year	Plants in United States				Plants in Canada				U.S.-Canada total
	Exports to Canada	Other exports	Domestic	Total	Exports to U.S.	Other exports	Domestic	Total	
				Passenger cars					
1962	17,118	162,988	6,753,134	6,933,240	--	13,974[a]	416,010	429,984	7,363,224
1963	7,168	187,038	7,443,522	7,637,728	--	16,146[a]	513,577	529,723	8,167,450
1964	14,858	182,859	7,554,105	7,751,822	--	38,306[a]	518,284	556,590	8,308,412
1965	46,540	159,123	9,120,737	9,326,400	33,862	39,771	630,604	704,237	10,030,637
1966	121,821	139,625	8,336,880	8,598,326	161,068	36,796	494,027	691,891	9,290,217
1967	246,140	120,460	7,070,164	7,436,764	326,139	34,829	354,822	715,790	8,152,554
1968	288,610	126,399	8,407,149	8,822,158	480,254	36,830	359,195	876,279	9,698,437
1969	286,392	130,847	7,806,476	8,223,715	676,765	35,948	314,890	1,027,603	9,251,318
1970	245,746	113,753	6,187,318	6,546,817	681,872	30,427	206,933	919,232	7,466,049
1971	352,130	110,748	8,121,714	8,584,592	779,769	37,654	258,034	1,075,457	9,660,049
1972	382,463	89,005	8,352,470	8,823,928	836,630	37,293	262,971	1,136,894	9,960,832
1973	476,099	102,699	9,078,849	9,657,647	862,407	41,126	322,506	1,226,039	10,883,686
1974	500,463	109,499	6,721,294	7,331,256	802,370	52,495	316,978	1,171,843	8,503,099
1975	549,353	90,199	6,073,300	6,712,852	713,407	58,149	271,689	1,043,245	7,756,097
1976	562,635	97,167	7,837,801	8,497,603	808,788	75,331	250,525	1,134,644	9,632,247
1977	586,073	102,308	8,512,468	9,200,849	831,994	87,148	236,559	1,155,701	10,356,550
1978	541,552	130,075	8,493,563	9,165,190	764,835	107,037	155,701	1,127,573	10,292,763
				Trucks and buses					
1962	3,089	134,854	1,102,225	1,240,168	--	3,881[a]	77,155	81,036	1,321,204
1963	2,810	143,633	1,316,265	1,462,708	--	4,447[a]	93,607	98,054	1,560,762
1964	2,847	160,179	1,377,427	1,540,453	--	7,194[a]	102,729	109,923	1,650,376
1965	9,550	126,311	1,615,944	1,751,805	7,001	15,525	119,138	141,664	1,893,469
1966	19,525	105,033	1,606,526	1,731,084	58,111	23,485	113,718	195,314	1,926,398
1967	35,199	89,825	1,414,438	1,539,462	98,029	26,999	100,932	225,960	1,765,422
1968	47,559	83,428	1,765,091	1,896,078	145,258	31,316	100,160	276,734	2,172,812
1969	60,251	81,745	1,781,177	1,923,179	197,551	30,318	87,300	315,169	2,238,348
1970	53,646	73,125	1,565,669	1,692,440	157,532	32,429	62,118	252,079	1,944,519

TABLE XVI-12. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1962-1978 (cont.)

Year	Plants in United States				Plants in Canada				U.S.-Canada total
	Exports to Canada	Other exports	Domestic	Total	Exports to U.S.	Other exports	Domestic	Total	
				Trucks and buses (cont.)					
1971	69,026	69,812	1,914,308	2,053,146	166,307	29,924	83,107	279,338	2,332,487
1972	94,453	57,983	2,294,371	2,446,807	204,405	23,223	90,595	318,223	2,765,030
1973	120,463	72,412	1,786,813	2,979,688	215,260	27,293	112,974	355,527	3,335,215
1974	167,514	90,173	2,469,626	2,727,313	188,895	39,556	148,048	376,499	3,103,812
1975	133,701	135,701	2,002,758	2,272,160	181,165	47,742	161,158	390,065	2,662,225
1976	128,524	116,855	2,733,670	2,979,049	265,623	44,065	188,226	497,914	3,476,963
1977	135,078	127,423	3,179,020	3,441,521	347,592	47,278	210,614	605,484	4,047,005
1978	138,970	151,621	3,415,648	3,706,239	396,935	51,195	214,169	662,299	4,368,538
				Total motor vehicles					
1962	49,629	297,842	7,855,359	8,173,408	—	17,855[a]	493,165	511,020	8,684,428
1963	17,658	330,671	8,759,787	9,100,436	—	20,593[a]	607,184	627,777	9,728,212
1964	17,705	343,038	8,931,532	9,292,275	—	45,500[a]	621,013	666,513	9,958,788
1965	56,090	285,434	10,736,681	11,078,205	40,863	55,296	749,742	845,901	11,924,106
1966	141,346	244,658	9,943,406	10,329,410	219,179	60,281	607,745	887,205	11,216,615
1967	281,339	210,285	8,484,602	8,976,226	424,168	61,828	455,754	941,750	9,917,976
1968	336,169	209,827	10,172,240	10,718,236	625,512	68,146	459,355	1,153,013	11,871,249
1969	346,649	212,592	9,587,653	10,146,894	874,316	66,266	402,190	1,342,772	11,489,666
1970	299,392	186,878	7,752,987	8,239,257	839,404	62,856	269,051	1,171,311	9,419,568
1971	421,156	180,560	10,036,022	10,637,738	946,076	67,578	341,141	1,354,795	11,992,533
1972	476,916	146,988	10,646,841	11,270,745	1,041,035	60,516	353,566	1,455,117	12,725,862
1973	596,562	175,111	11,865,662	12,637,335	1,077,667	68,419	435,480	1,581,566	14,218,901
1974	667,977	199,672	9,190,920	10,058,569	991,265	92,051	465,026	1,548,342	11,606,911
1975	683,054	225,900	8,076,058	8,985,012	894,572	105,891	432,847	1,433,310	10,418,322
1976	691,159	214,022	10,571,471	11,476,652	1,074,411	119,396	438,751	1,632,558	13,109,210
1977	721,151	229,731	11,691,488	12,642,370	1,179,586	134,426	447,173	1,761,185	14,403,555
1978	680,522	281,696	11,909,211	12,871,429	1,161,770	158,232	469,870	1,789,872	14,661,301

SOURCE: Motor Vehicle Manufacturers Association of the United States, Inc., special release.
a. Includes exports to the United States.

TABLE XVI-13. U. S.-CANADA TRADE IN AUTOMOTIVE PRODUCTS, U. S. IMPORTS FROM CANADA AND CANADIAN IMPORTS FROM THE UNITED STATES: 1973-1978

(In millions of U.S. dollars)

	1973	1974	1975	1976	1977	1978[a]
U.S. exports[b]						
Cars	1,439	1,657	2,142	2,354	2,655	2,613
Trucks	643	916	922	985	1,057	1,158
Parts	3,552	3,980	4,409	5,550	6,434	7,080
Sub total	5,634	6,554	7,472	8,889	10,146	10,851
Tires and tubes	92	223	170	116	145	113
Total exports	5,726	6,777	7,643	9,005	10,290	10,964
U.S. imports						
Cars	2,272	2,595	2,809	3,477	3,795	4,129
Trucks	789	887	917	1,363	1,841	2,240
Parts	2,172	1,997	2,008	2,983	3,496	3,955
Sub total	5,233	5,479	5,734	7,823	9,132	10,324
Tires and tubes	68	65	67	166	135	167
Total imports	5,301	5,544	5,801	7,989	9,267	10,491
Net balance	+ 426	+1,233	+1,842	+1,016	+1,023	+ 473

SOURCE: U. S. Department of Commerce, special release.

NOTE: Data exclude U.S.-Canadian trade in materials for use in the manufacture of automotive parts. Data are adjusted to reflect transaction values for vehicles. $1.00 Canadian = $0.997 U.S., 1973; $1.02246, U.S., 1974; $.984001, U.S. 1975; $1.0141, U.S. 1976;$0.94095, U.S. 1977; and $0.91132, U.S. 1978.

a. Preliminary.

b. Canadian import data. Parts exports (Canadian imports) adjusted to exclude tooling charges in millions of U.S. dollars as follows: 1973, $68.00; 1974, $188.00; 1975, $110.00; 1976, $105.00; and 1977, $72.00.

TABLE XVI-14. PRODUCTION OF RECREATIONAL VEHICLES IN MICHIGAN AND THE UNITED STATES, BY TYPE OF VEHICLE: 1973-1976

Vehicle type	Michigan				United States			
	1973	1974	1975	1976	1973	1974	1975	1976
Travel trailer	10,147	4,664	3,047	3,437	216,078	123,283	150,600	190,100
Truck-mounted camper	2,941	1,712	567	1,413	84,017	40,511	44,300	42,000
Truck cap	5,015	2,550	9,184	n.a.	238,098	232,375	212,500	n.a.
Camping trailer	19,294	9,837	11,091	15,378	91,964	40,511	48,100	53,300
Motor home								
Type A[a]	6,303	3,035	3,805	7,154	62,399	27,782	30,300	45,200
Type B[b]	1,690	1,642	631	1,198	18,040	15,668	26,400	136,100
Type C[c]	1,275	368	957	4,269	32,277	19,083	39,900	74,800

SOURCE: 1973 figures from RV Dealer magazine, special release; and 1974, 1975, and 1976 figures from Recreation Vehicle Industry Association, Facts and Trends (Chantilly, Va.: 1977).

a. Motor home built on a conventional truck or automobile chassis. Data are not available prior to 1969.

b. Modified van type truck modified (generally with expandable top for headroom) to contain accommodations for sleeping, cooking, food storage, and toilet. Data are not available prior to 1969.

c. Chopped van type truck, or mini-motor home. The sheet metal behind the seat is removed for installation of living accommodations. Data are not available prior to 1969.

n.a.: not available.

TABLE XVI-20. NEW PASSENGER CAR AND TRUCK REGISTRATIONS IN MICHIGAN AND THE UNITED STATES, BY NAMEPLATE: 1977 AND 1978

Make	1977		1978	
	Michigan	United States	Michigan	United States
Passenger cars				
AMC[a]	16,271	182,539	16,017	157,797
Chrysler	24,255	303,480	22,145	289,631
Dodge	29,614	448,128	33,817	427,946
Plymouth	32,041	436,027	32,748	394,534
Ford	112,497	1,791,414	110,557	1,769,077
Lincoln	14,904	172,853	13,960	178,873
Mercury	37,968	489,160	41,398	560,299
Buick	49,261	735,396	50,347	762,532
Cadillac	20,974	325,724	20,936	335,053
Chevrolet	141,826	2,205,566	142,384	2,294,990
Oldsmobile	72,347	953,875	69,697	967,896
Pontiac	63,425	800,230	64,322	857,083
Other	48,739	1,981,842	51,370	1,950,393
TOTAL	664,122	10,826,234	669,700	10,946,104
Motor trucks				
Dodge	20,965	460,623	21,496	464,470
Ford	57,995	1,139,224	68,469	1,314,251
Chevrolet	63,788	1,133,201	73,737	1,275,787
G.M.C.	15,917	280,776	19,831	329,185
International	3,578	108,753	4,281	116,574
Jeep truck	7,084	124,843	9,832	163,548
Brockway	12	802	3	37
Mack	327	22,994	389	27,390
Diamond Reo	0	5	0	0
White[b]	457	20,772	680	25,017
Other	3,751	217,335	4,521	247,081
TOTAL	173,874	3,509,328	203,239	3,963,340

SOURCE: Compiled from data supplied by R.L. Polk & Company. Further reproduction not authorized without the express permission of R.L. Polk & Company.

a. Passenger cars manufactured by American Motors Corporation.

b. Trucks manufactured by White Motor Corporation.

TABLE XVI-21. NEW PASSENGER CAR REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978

County	1973	1974	1975	1976	1977	1978
Alcona	412	324	329	430	430	467
Alger	312	286	349	351	362	342
Allegan	3,376	2,637	2,484	2,837	2,928	2,894
Alpena	1,615	1,231	1,246	1,520	1,519	1,416
Antrim	677	493	439	583	650	608
Arenac	712	571	540	711	689	781
Baraga	406	332	343	375	427	444
Barry	1,743	1,215	1,274	1,497	1,464	1,565
Bay	7,126	5,232	4,983	6,483	6,893	6,620
Benzie	430	359	373	457	469	485
Berrien	10,323	7,662	7,223	8,623	9,322	9,039
Branch	2,204	1,534	1,387	1,798	1,955	1,923
Calhoun	8,550	6,294	6,018	7,205	7,800	7,334
Cass	2,262	1,594	1,499	1,924	1,939	1,989
Charlevoix	810	638	616	830	843	916
Cheboygan	885	669	665	795	909	855
Chippewa	1,545	1,313	1,316	1,425	1,240	1,169
Clare	1,167	892	844	1,025	1,169	1,114
Clinton	2,477	1,748	1,722	2,357	2,394	2,322
Crawford	452	325	386	437	565	457
Delta	1,294	1,201	1,140	1,379	1,428	1,416
Dickinson	1,024	840	888	1,089	1,079	1,122
Eaton	4,037	2,565	2,816	3,395	3,820	3,710
Emmet	996	724	677	873	998	1,124
Genesee	34,444	23,003	24,593	32,915	38,121	36,292
Gladwin	791	625	659	823	854	875
Gogebic	751	669	622	718	660	669
Grand Traverse	2,244	1,849	1,929	2,455	2,804	2,880
Gratiot	2,110	1,524	1,454	1,755	1,739	1,779
Hillsdale	1,924	1,367	1,191	1,540	1,653	1,768
Houghton	944	938	951	1,028	1,114	1,089
Huron	2,243	1,660	1,559	1,868	1,895	1,902
Ingham	22,588	15,558	16,366	19,642	21,472	22,268
Ionia	2,926	2,196	1,944	2,388	2,388	2,306
Iosco	1,456	1,142	1,130	1,416	1,435	1,338

TABLE XVI-21. NEW PASSENGER CAR REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978 (cont.)

County	1973	1974	1975	1976	1977	1978
Iron	541	512	482	594	598	557
Isabella	2,029	1,457	1,503	1,839	1,928	1,867
Jackson	9,570	6,817	6,339	7,281	7,878	7,877
Kalamazoo	11,896	9,295	9,075	10,930	11,516	11,635
Kalkaska	381	282	305	364	400	403
Kent	26,722	20,760	19,575	23,916	25,700	27,079
Keweenaw	69	52	74	94	76	78
Lake	244	203	200	237	252	228
Lapeer	4,239	2,566	2,703	3,389	3,758	3,856
Leelanau	385	315	294	467	433	462
Lenawee	5,361	3,914	3,590	4,517	5,001	5,242
Livingston	4,671	3,449	3,420	4,447	5,381	5,586
Luce	297	252	254	303	291	255
Mackinac	456	375	346	460	448	402
Macomb	62,722	48,370	45,787	58,261	64,854	65,443
Manistee	982	895	916	1,064	1,086	1,056
Marquette	2,883	2,494	2,524	2,988	2,974	2,992
Mason	1,061	870	854	998	1,038	1,018
Mecosta	1,193	896	926	1,169	1,228	1,258
Menominee	826	735	668	873	875	836
Midland	3,851	3,018	2,914	3,426	3,826	3,650
Missaukee	309	236	274	318	391	369
Monroe	7,137	5,510	4,616	6,105	6,878	6,465
Montcalm	2,349	1,940	1,800	2,171	2,157	2,304
Montmorency	363	292	316	363	437	396
Muskegon	7,150	5,476	4,848	6,150	6,432	6,516
Newaygo	1,351	1,036	986	1,116	1,284	1,233
Oakland	90,029	68,971	68,340	91,195	100,458	104,638
Oceana	871	691	586	775	807	829
Ogemaw	703	499	491	681	671	721
Ontonagon	459	421	361	363	396	395
Osceola	830	665	630	731	810	794
Oscoda	213	154	184	212	223	223
Otsego	746	662	568	747	823	796
Ottawa	7,599	5,777	5,423	6,993	7,557	7,716

TABLE XVI-21. NEW PASSENGER CAR REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978 (cont.)

County	1973	1974	1975	1976	1977	1978
Presque Isle	652	553	519	568	618	594
Roscommon	865	651	726	947	1,004	1,013
Saginaw	14,303	10,370	10,739	13,726	14,876	14,374
St. Clair	7,270	5,469	4,873	6,402	6,676	6,673
St. Joseph	3,225	2,213	1,973	2,671	2,728	2,824
Sanilac	2,295	1,661	1,511	2,005	2,040	2,169
Schoolcraft	408	376	351	452	439	424
Shiawassee	4,244	3,043	4,089	3,747	4,159	4,311
Tuscola	3,070	2,176	2,296	2,839	3,094	2,999
Van Buren	3,311	2,558	2,468	2,915	2,865	2,977
Washtenaw	16,740	12,739	12,111	15,053	16,913	17,940
Wayne	217,091	178,028	168,089	192,981	211,471	211,886
Wexford	1,018	764	764	944	1,048	1,028
State owned	2,269	1,461	1,840	1,245	1,899	2,035
TOTAL	664,505	513,129	496,476	606,979	662,223	669,700

SOURCE: R.L. Polk & Co., Motor Statistical Division, special release.

TABLE XVI-22. NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978

County	1973	1974	1975	1976	1977	1978
Alcona	189	141	131	240	222	232
Alger	168	169	180	243	301	266
Allegan	1,359	1,099	1,089	1,511	1,735	1,861
Alpena	598	492	529	742	784	766
Antrim	267	207	211	315	327	377
Arenac	304	239	218	379	346	394
Baraga	205	168	164	292	270	294
Barry	744	551	585	865	897	917
Bay	1,813	1,592	1,552	2,284	2,345	2,525
Benzie	138	133	160	249	266	293
Berrien	2,975	2,617	2,203	3,125	3,706	4,127
Branch	788	787	527	886	1,050	1,222
Calhoun	1,977	1,745	1,680	2,367	2,406	2,744
Cass	920	711	644	951	1,168	1,262
Charlevoix	329	273	266	444	554	538
Cheboygan	333	295	328	444	473	436
Chippewa	567	526	551	759	708	671
Clare	507	426	430	658	657	697
Clinton	961	693	820	1,238	1,165	1,296
Crawford	162	162	177	223	279	262
Delta	608	536	502	766	708	734
Dickinson	404	444	462	574	632	666
Eaton	1,539	1,108	1,280	1,720	2,042	2,142
Emmet	382	316	321	474	565	548
Genesee	7,198	5,120	6,033	9,538	10,430	11,701
Gladwin	376	297	337	483	544	582
Gogebic	325	302	276	399	389	402
Grand Traverse	882	841	810	1,225	1,524	1,568
Gratiot	876	755	710	1,049	865	899
Hillsdale	744	627	566	782	911	1,020
Houghton	452	364	328	509	550	559
Huron	777	665	630	849	765	905
Ingham	4,212	3,287	3,424	4,953	5,705	6,818
Ionia	961	857	784	1,198	1,179	1,363
Iosco	445	427	407	605	619	686

TABLE XVI-22. NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978 (cont.)

County	1973	1974	1975	1976	1977	1978
Iron	247	298	275	389	393	368
Isabella	749	582	587	908	792	980
Jackson	2,515	2,098	2,027	2,538	2,736	3,373
Kalamazoo	2,750	2,398	2,279	3,267	3,434	4,052
Kalkaska	191	182	259	349	414	382
Kent	5,836	5,679	4,552	6,376	7,787	9,621
Keweenaw	25	32	22	36	38	28
Lake	103	82	90	142	145	137
Lapeer	1,467	1,093	1,136	1,827	1,916	2,305
Leelanau	149	112	101	190	204	219
Lenawee	1,731	1,531	1,316	1,958	2,237	2,543
Livingston	1,572	1,285	1,346	1,841	2,180	2,445
Luce	158	148	143	221	191	186
Mackinac	176	181	178	222	283	262
Macomb	10,124	8,830	9,114	12,377	14,322	17,645
Manistee	297	294	318	467	527	544
Marquette	1,215	1,159	1,349	1,868	1,782	1,974
Mason	418	367	334	439	512	582
Mecosta	504	452	448	705	654	709
Menominee	332	351	284	389	404	452
Midland	1,038	922	955	1,257	1,305	1,455
Missaukee	188	148	146	252	302	310
Monroe	1,948	1,727	1,658	2,349	2,584	3,213
Montcalm	931	838	800	1,153	1,175	1,331
Montmorency	159	140	169	256	270	292
Muskegon	1,886	1,559	1,232	2,040	2,480	3,133
Newaygo	519	474	429	625	689	748
Oakland	13,480	11,863	12,221	16,596	19,360	22,617
Oceana	369	383	292	483	558	627
Ogemaw	313	281	243	409	390	431
Ontonagon	200	251	195	230	247	234
Osceola	441	374	385	525	548	615
Oscoda	123	85	82	127	155	158
Otsego	388	308	358	445	501	569
Ottawa	1,984	1,738	1,475	2,331	2,839	3,476

TABLE XVI-22. NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1973-1978 (cont.)

County	1973	1974	1975	1976	1977	1978
Presque Isle	261	228	255	339	342	407
Roscommon	339	255	286	423	476	556
Saginaw	3,327	2,729	2,693	4,051	4,336	4,789
St. Clair	2,076	1,568	1,440	2,106	2,382	2,856
St. Joseph	1,152	926	849	1,263	1,399	1,616
Sanilac	924	764	715	1,037	954	1,195
Schoolcraft	207	187	202	259	286	252
Shiawassee	1,526	1,111	1,474	1,996	1,999	2,126
Tuscola	1,243	1,139	1,181	1,722	1,591	1,762
Van Buren	1,404	1,178	1,090	1,514	1,567	1,808
Washtenaw	3,197	2,792	2,807	3,632	4,129	4,924
Wayne	23,537	21,852	21,815	28,073	31,827	39,885
Wexford	378	330	367	515	557	642
State owned	600	591	667	691	588	632
TOTAL	130,182	112,867	111,956	156,547	173,288	203,329

SOURCE: R.L. Polk & Co., Motor Statistical Division, special release.

TABLE XVI-23. RANKING OF MICHIGAN COUNTIES ACCORDING TO TOTAL NEW CAR REGISTRATIONS PER 100,000 POPULATION: 1978

County	Registrations per 100,000 population 1977	1978	County	Registrations per 100,000 population 1977	1978
Oakland	10,161	10,366	Benzie	4,425	4,575
Macomb	9,466	9,438	Schoolcraft	4,878	4,559
Wayne	8,720	8,863	Gratiot	4,380	4,527
Ingham	7,973	8,217	Eaton	4,817	4,519
Genesee	8,498	8,047	Wexford	4,679	4,509
Washtenaw	6,733	7,049	Iosco	4,783	4,387
Saginaw	6,542	6,313	Cass	4,252	4,381
Roscommon	6,354	6,253	Osceola	4,451	4,363
Kent	5,957	6,214	Cheboygan	4,522	4,318
Shiawassee	5,976	6,132	Dickinson	4,248	4,299
Livingston	6,228	6,052	Ogemaw	4,386	4,292
Lenawee	5,795	6,005	Hillsdale	4,071	4,291
Grand Traverse	5,916	5,950	Alpena	4,562	4,240
Arenac	5,066	5,785	Clinton	4,442	4,222
Lapeer	5,872	5,747	Presque Isle	4,383	4,213
Kalamazoo	5,618	5,676	Mason	4,119	4,121
Otsego	5,755	5,566	Muskegon	4,050	4,103
St. Joseph	5,307	5,452	Marquette	4,068	4,054
Bay	5,706	5,444	Oceana	3,843	3,948
Tuscola	5,667	5,443	Allegan	3,984	3,911
Berrien	5,480	5,403	Chippewa	3,425	3,833
Sanilac	5,178	5,396	Missaukee	4,160	3,804
Huron	5,279	5,313	Iron	4,096	3,789
Jackson	5,298	5,244	Antrim	4,063	3,730
Midland	5,521	5,237	Newaygo	3,975	3,692
Emmet	4,642	5,228	Ontonagon	3,600	3,692
Calhoun	5,560	5,213	Barry	3,461	3,648
Ottawa	5,169	5,165	Mecosta	3,529	3,615
Baraga	5,083	5,163	Mackinac	4,148	3,589
Montmorency	5,986	5,143	Isabella	3,773	3,583
Montcalm	4,783	5,075	Keweenaw	3,167	3,545
Alcona	4,725	5,022	Kalkaska	3,636	3,535
Crawford	6,209	5,022	Delta	3,570	3,514
St. Clair	5,058	4,999	Luce	3,986	3,493
Branch	5,131	4,943	Leelanau	3,331	3,448
Monroe	5,299	4,905	Alger	3,694	3,420
Gladwin	4,825	4,781	Gogebic	3,267	3,413
Van Buren	4,599	4,778	Oscoda	3,484	3,328
Charlevoix	4,301	4,722	Lake	3,549	3,257
Manistee	4,959	4,693	Menominee	3,340	3,155
Clare	5,105	4,681	Houghton	2,979	2,920
Ionia	4,864	4,640	Michigan	7,260	7,288

SOURCE: Developed from Michigan Department of Management and Budget, special release; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

TABLE XVI-24. RANKING OF MICHIGAN COUNTIES ACCORDING TO NEW DOMESTIC-MAKE PASSENGER CAR REGISTRATIONS PER 100,000 POPULATION: 1978

County	Registrations per 100,000 population 1977	1978	County	Registrations per 100,000 population 1977	1978
Oakland	9,532	9,697	Emmet	3,982	4,288
Macomb	9,017	8,964	Charlevoix	3,852	4,258
Wayne	8,379	8,501	Eaton	4,524	4,253
Genesee	8,209	7,744	Wexford	4,295	4,127
Ingham	7,224	7,483	Osceola	4,127	4,105
Saginaw	6,251	6,045	Presque Isle	4,277	4,100
Roscommon	6,019	6,025	Iosco	4,576	4,095
Washtenaw	5,695	5,974	Hillsdale	3,830	4,087
Shiawassee	5,709	5,855	Ogemaw	4,111	4,078
Ottawa	4,575	5,655	Clinton	4,256	4,026
Arenac	5,785	5,637	Cheboygan	4,144	4,020
Kent	5,382	5,629	Benzie	3,897	4,009
Livingston	5,765	5,623	Cass	3,785	4,007
Lenawee	5,261	5,539	Alpena	4,325	3,994
Lapeer	5,572	5,489	Dickinson	3,850	3,992
Tuscola	5,531	5,289	Mason	3,718	3,882
Sanilac	5,003	5,277	Muskegon	3,670	3,748
Otsego	5,447	5,251	Chippewa	3,262	3,682
Huron	5,198	5,235	Allegan	3,672	3,656
Bay	5,461	5,227	Oceana	3,457	3,624
St. Joseph	4,920	5,029	Missaukee	3,883	3,577
Kalamazoo	4,843	4,959	Iron	3,692	3,565
Montmorency	5,698	4,935	Ontonagon	3,273	3,458
Berrien	4,936	4,918	Newaygo	3,641	3,452
Baraga	4,654	4,872	Isabella	3,558	3,385
Calhoun	5,103	4,831	Luce	3,863	3,370
Jackson	4,826	4,804	Mackinac	3,796	3,367
Crawford	5,868	4,791	Barry	3,177	3,366
Montcalm	4,417	4,756	Mecosta	3,098	3,313
Branch	4,827	4,704	Marquette	3,177	3,290
St. Clair	4,713	4,690	Kalkaska	3,254	3,219
Midland	4,836	4,686	Antrim	3,488	3,196
Alcona	4,472	4,646	Delta	3,237	3,179
Gladwin	4,639	4,617	Gogebic	3,010	3,112
Monroe	4,975	4,595	Lake	3,324	3,100
Grand Traverse	4,669	4,533	Keweenaw	2,792	3,090
Ionia	4,634	4,483	Oscoda	3,265	3,044
Clare	4,799	4,471	Alger	3,357	3,000
Manistee	4,763	4,471	Menominee	2,958	2,906
Gratiot	4,209	4,377	Leelanau	2,569	2,545
Van Buren	4,101	4,377	Houghton	2,452	2,448
Schoolcraft	4,722	4,355	Michigan	6,812	6,841

SOURCE: Developed from Michigan Department of Management and Budget, special release; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

TABLE XVI-25. RANKING OF MICHIGAN COUNTIES ACCORDING TO TOTAL NEW OVERSEAS-MAKE CAR REGISTRATIONS PER 100,000 POPULATION: 1978

County	Registrations per 100,000 population 1977	1978	County	Registrations per 100,000 population 1977	1978
Grand Traverse	1,247	1,417	Iosco	207	292
Washtenaw	1,038	1,075	Baraga	429	291
Emmet	660	940	Oscoda	219	284
Leelanau	762	903	Barry	284	282
Marquette	891	764	Shiawassee	267	277
Ingham	749	734	Saginaw	291	268
Kalamazoo	775	717	Eaton	293	266
Oakland	629	669	Lapeer	300	258
Kent	575	585	Osceola	324	258
Benzie	528	566	Allegan	312	255
Midland	685	551	Menominee	382	249
Antrim	575	534	Alpena	237	246
Ottawa	594	510	Newaygo	334	240
Berrien	544	485	Branch	304	239
Macomb	449	474	Mason	401	239
Houghton	527	472	Ontonagon	327	234
Lenawee	534	466	Crawford	341	231
Charlevoix	449	464	Roscommon	335	228
Keweenaw	375	455	Missaukee	277	227
Jackson	472	440	Iron	404	224
Livingston	463	429	Mackinac	352	222
St. Joseph	387	423	Manistee	196	222
Van Buren	498	401	Bay	245	217
Alger	337	420	Ogemaw	275	214
Calhoun	457	382	Clare	306	210
Wexford	384	382	Montmorency	288	208
Alcona	253	376	Hillsdale	241	204
Cass	467	374	Schoolcraft	156	204
Wayne	341	362	Isabella	215	198
Muskegon	380	355	Clinton	186	196
Delta	333	335	Gladwin	186	164
Oceana	386	324	Ionia	230	157
Montcalm	366	319	Lake	225	157
Kalkaska	382	316	Tuscola	136	154
Otsego	308	315	Chippewa	163	151
Monroe	324	310	Gratiot	171	150
St. Clair	345	309	Arenac	191	148
Dickinson	398	307	Luce	123	123
Genesee	289	303	Sanilac	175	119
Mecosta	431	302	Presque Isle	106	113
Gogebic	257	301	Huron	81	78
Cheboygan	378	298	Michigan	448	447

SOURCE: Developed from Michigan Department of Management and Budget, special release; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

TABLE XVI-26. RANKING OF MICHIGAN COUNTIES ACCORDING TO TOTAL NEW TRUCK REGISTRATIONS PER 100,000 POPULATION: 1978

County	Registrations per 100,000 population 1977	1978	County	Registrations per 100,000 population 1977	1978
Otsego	3,504	3,979	Iron	2,692	2,503
Montmorency	3,699	3,792	Alcona	2,440	2,495
Lapeer	2,966	3,435	Hillsdale	2,244	2,476
Roscommon	3,013	3,432	Berrien	2,179	2,467
Baraga	3,214	3,419	Monroe	1,991	2,438
Osceola	3,011	3,379	Manistee	2,406	2,418
Kalkaska	3,764	3,351	Oscoda	2,422	2,358
Grand Traverse	3,215	3,290	Clinton	2,161	2,356
Tuscola	2,914	3,198	Mason	2,032	2,356
Missaukee	3,213	3,196	Mackinac	2,620	2,339
Gladwin	3,073	3,180	Ottawa	1,942	2,327
Branch	2,756	3,141	Antrim	2,044	2,313
St. Joseph	2,722	3,120	Alpena	2,354	2,293
Shiawassee	2,872	3,024	Gratiot	2,179	2,288
Oceana	2,657	2,986	Iosco	2,063	2,249
Sanilac	2,421	2,973	Jackson	1,840	2,246
Montcalm	2,605	2,932	Oakland	1,958	2,241
Clare	2,869	2,929	Newaygo	2,133	2,240
Arenac	2,544	2,919	Kent	1,805	2,208
Lenawee	2,592	2,913	Cheboygan	2,353	2,202
Van Buren	2,515	2,902	Chippewa	1,956	2,200
Presque Isle	2,426	2,887	Ontonagon	2,245	2,187
Crawford	3,264	2,879	St. Clair	1,805	2,139
Wexford	2,487	2,816	Barry	2,121	2,138
Cass	2,561	2,780	Saginaw	1,908	2,103
Charlevoix	2,827	2,773	Midland	1,883	2,088
Benzie	2,509	2,764	Bay	1,941	2,076
Ionia	2,401	2,742	Gogebic	1,926	2,051
Schoolcraft	3,178	2,710	Mecosta	1,879	2,037
Marquette	2,438	2,675	Muskegon	1,562	1,973
Alcona	2,440	2,660	Lake	2,042	1,957
Livingston	2,523	2,649	Calhoun	1,715	1,950
Eaton	2,575	2,609	Kalamazoo	1,675	1,948
Genesee	2,325	2,594	Washtenaw	1,644	1,935
Ogemaw	2,549	2,565	Isabella	1,550	1,881
Dickinson	2,488	2,552	Delta	1,770	1,821
Emmet	2,628	2,549	Menominee	1,542	1,706
Luce	2,616	2,548	Wayne	1,312	1,668
Macomb	2,091	2,545	Leelanau	1,569	1,634
Huron	2,131	2,528	Houghton	1,471	1,499
Ingham	2,119	2,516	Keweenaw	1,583	1,273
Allegan	2,361	2,515	Michigan	1,894	2,213

SOURCE: Developed from Michigan Department of Management and Budget, special release; and R.L. Polk & Company, special release. Further reproduction not authorized without the express permission of R.L. Polk & Company.

XVII. TRANSPORTATION

The Interstate Commerce Commission in its various publications, especially Transport Statistics in the United States, gives extensive information about railroads. The Association of American Railroads also collects railway statistics.

Data on the Michigan highway system are obtained from the reports of the Michigan State Highway Commission. Information on drivers' licenses and the registration of motor vehicles is given in the reports of the Michigan Department of State. The Michigan Department of State Police collects statistics on the number of motor vehicles traffic accidents in Michigan. The Bureau of Public Roads of the United States Department of Commerce publishes an annual report, Highway Statistics, that gives a great deal of information about the nation's public roads.

The United States Bureau of the Census has published information on motor trucks in the 1972 Census of Transportation. The information is obtained on the basis of a sample of about 114,000 trucks out of an estimated 19,500,000 registered.

The U.S. National Travel Survey, another component of the Census of Transportation, was based on a survey of approximately 24,000 households in the United States. In the 1972 survey a trip was defined as a person going to a place at least 100 miles away from home and returning.

The Federal Aviation Agency releases a number of publications including the FAA Statistical Handbook of Aviation, FAA Air Traffic Activity, and Census of U.S. Civil Aircraft, which contain a wealth of information pertaining to aviation activities.

Information regarding freight traffic on Michigan waterways can be found in Waterborne Commerce of the United States, a publication of the Corps of Engineers of the United States Department of the Army.

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TABLE XVII-1. MILES OF ROAD OWNED BY RAILROADS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1870-1974

Year	Michigan	United States	Year	Michigan	United States
1870	1,638	52,922	1963	6,502	214,387
1880	3,938	93,267	1964	6,461	212,059
1890	7,243	163,597	1965	6,408	211,384
1900	8,195	193,346	1966	6,392	210,573
1910	9,021	240,439	1967	6,372	209,292
1920	8,743	252,845	1968	6,303	208,111
1930	8,072	249,052	1969	6,301	207,005
1940	7,303	233,670	1970	6,183	205,782
1950	6,803	223,779	1971	6,159	204,696
1955	6,680	220,670	1972	6,135	202,775
1960	6,640	217,536	1973	6,032	201,067
1962	6,520	214,952	1974	5,963	200,391

SOURCE: Interstate Commerce Commission, Transport Statistics in the United States, Part 1, Railroads, 1955 through 1974 (Washington, D.C.: annually), Release 2, Table 56 (1974); and Interstate Commerce Commission, Annual Report, 1870 through 1950 (Washington, D.C.: annually).
NOTE: Data are for actual length of line without duplication. Figures related to 30 June prior to 1920 and 31 December thereafter; they include reporting private and unofficial railways, but beginning with 1910 exclude switching and terminal roads. These figures exclude 598 miles for Alaska and Hawaii prior to 1960.

TABLE XVII-2. MILES OF INTERSTATE COMMERCE COMMISSION REGULATED OIL PIPELINE OPERATED IN MICHIGAN, BY TYPE: 31 DECEMBER 1966-1976

	Owned					
	Trunk lines			Gathering lines,		Grand
Year	Crude oil	Refined oils[a]	Total	crude oil	Other[b]	total
1966	1,531	1,050	2,581	61	43	2,685
1967	1,355	1,066	2,421	61	43	2,525
1968	1,205	1,201	2,406	61	43	2,510
1969	1,430	1,200	2,630	61	43	2,734
1970	1,430	1,208	2,638	61	30	2,729
1971	1,430	1,221	2,651	61	30	2,742
1972	1,083	1,237	2,320	61	43	2,424
1973	1,675	1,144	2,819	286	60	3,165
1974	1,659	1,213	2,872	191	80	3,123
1975	760	1,218	1,978	1,051	60	3,089
1976	1,616	1,214	2,830	324	60	3,214

SOURCE: Interstate Commerce Commission, Transport Statistics in the United States, Part 6, Pipe Lines, 1966 through 1976 (Washington, D.C.: annually), Table 3 (1976).

a. Includes lines handling liquified petroleum products.

b. Includes mileage owned in individual interests and mileage owned by others. Excludes "owned" mileage operated by others. Includes lines handling liquified petroleum products.

TABLE XVII-5. EXISTING MILEAGE OF STATE-ADMINISTERED PRIMARY ROADS AND STREETS IN MICHIGAN, BY TYPE OF SURFACE: 1950-1977

Year	Gravel, stone, and stabilized soil	Low type bituminous	High type bituminous	Portland cement and all other	Total
1950	1,349	2,276	1,057	3,565	8,235
1951	1,195	2,407	1,206	3,441	8,249
1952	1,021	2,560	1,447	3,217	8,245
1953	983	2,487	1,585	3,171	8,226
1954	960	2,535	1,688	3,083	8,266
1955	881	2,549	1,815	2,987	8,232
1956	776	2,697	2,551	3,337	9,351
1957	657	2,748	2,710	3,213	9,328
1958	553	2,792	3,146	2,970	9,441
1959	408	2,779	3,285	2,858	9,330
1960	230	2,807	3,449	2,739	9,225
1961	49	2,873	3,585	2,660	9,167
1962	18	2,825	3,589	2,750	9,182
1963	0	2,819	3,634	2,754	9,207
1964	0	2,751	3,765	2,732	9,248
1965	0	2,668	3,139	2,191	7,998
1966	0	2,749	3,811	2,648	9,208
1967	0	2,798	3,776	2,634	9,208
1968	0	2,798	3,830	2,587	9,215
1969	0	2,827	3,843	2,570	9,240
1970	0	2,807	3,906	2,538	9,251
1971	0	2,801	3,956	2,493	9,250
1972	0	2,785	3,977	2,483	9,245
1973	0	2,817	3,959	2,515	9,291
1974	0	2,817	3,954	2,551	9,322
1975	0	2,843	3,960	2,587	9,390
1976	0	2,976	4,020	2,421	9,417
1977	0	2,983	3,871	2,600	9,454

SOURCES: Federal Highway Administration, Highway Statistics, 1950 through 1974 (Washington, D.C.: annually), Table SM-2 (1974), and special release (1975-1977 data).

TABLE XVII-6. EXPENDITURES FOR CONSTRUCTION AND MAINTENANCE OF STATE-ADMINISTERED HIGHWAYS AND STREETS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1925-1977

(In thousands of dollars)

Year	Construction[a]		Maintenance	
	Michigan	United States[b]	Michigan	United States[b]
1925	24,481	403,843	2,050	119,304
1930	24,612	728,887	6,554	193,928
1935	15,295	438,306	5,643	187,122
1940	20,542	563,074	8,642	218,776
1945	5,414	210,467	13,406	287,734
1950	34,405	1,533,859	15,272	501,487
1955	107,452	3,102,994	23,652	675,629
1956	150,536	3,661,979	25,063	756,473
1957	171,737	4,139,322	27,858	812,426
1958	170,316	4,713,644	24,368	867,137
1959	187,155	5,075,864	27,870	903,070
1960	219,941	4,669,349	25,555	985,648
1961	285,028	5,105,084	26,083	1,019,839
1962	235,192	5,608,404	26,780	1,093,279
1963	204,869	6,047,762	27,403	1,133,389
1964	159,112	6,362,372	28,818	1,210,321
1965	173,508	6,458,214	32,600	1,309,786
1966	227,239	7,056,353	30,707	1,402,296
1967	220,554	7,339,818	38,090	1,513,502
1968	215,732	7,866,362	35,172	1,593,652
1969	193,564	7,499,706	41,496	1,485,656
1970	220,900	8,866,017	41,984	1,928,819
1971	266,565	9,416,682	49,487	2,086,947
1972	266,723	9,383,859	49,497	2,236,190
1973	255,982	8,981,484	53,574	2,458,251
1974	311,408	9,390,755	55,676	2,656,449
1975	309,758	10,168,550	65,747	2,946,178
1976	294,332	9,676,657	70,260	3,116,823
1977	290,658	8,882,872	81,795	3,465,796

SOURCE: Federal Highway Administration, Highway Statistics, 1925 through 1945 (Washington, D.C.: annually), Table SF-4 (1950-1977 data).

a. Includes acquisition of right-of-way, preliminary and construction engineering, construction of roads, construction of major structures, and installation of traffic service facilities.

b. Prior to 1959 Alaska and Hawaii excluded.

TABLE XVII-3. GRADE SEPARATIONS AND GRADE CROSSINGS OF RAILROAD WITH HIGHWAY OF CLASS 1 LINE-HAUL RAILROADS AND SWITCHING AND TERMINAL COMPANIES IN MICHIGAN, BY KIND OF PROTECTION: 31 DECEMBER 1970-1974

Item	1970	1971	1972	1973	1974
Grade separation					
Highway above railroad	351	364	351	354	359
Railroad above highway	426	435	435	435	432
Grade crossing					
Automatic gates w/flashing lights	491	514	540	557	566
Automatic flashing light signals	1,790	1,816	1,814	1,803	1,803
Gates manually operated 24 hours a day	36	34	33	33	32
Gates manually operated less than 24 hours a day	0	0	0	0	0
Watchmen only, 24 hours a day	21	20	20	20	20
Watchmen only, less than 24 hours a day	18	18	18	18	16
Audible signals only	82	81	74	74	71
Other automatic signals	77	71	66	65	63
Total indicating warning of train approach	2,515	2,554	2,565	2,570	2,571
"Railroad Crossing" crossbuck signs only	4,344	4,284	4,213	4,098	4,078
Crossbuck signs w/other fixed signs	1,887	1,867	1,839	1,840	1,840
Other fixed signs only	252	248	248	248	248
No signs or signals	125	125	122	124	124
TOTAL	9,123	9,078	8,984	8,880	8,861

SOURCE: Interstate Commerce Commission, Transport Statistics in the United States, 1974, Part 1, Railroads (Washington, D.C.: 1976), Release 2, Tables 53 and 54.

TABLE XVII-4. EXISTING MUNICIPAL AND RURAL ROAD MILEAGE, BY TYPE AND BY GOVERNMENTAL LEVEL WITH PRIMARY JURISDICTION, MICHIGAN AND THE UNITED STATES: 1967-1977

Year	Municipal	Rural						Total rural and municipal
		Type			Governmental level with primary jurisdiction			
		Surfaced	Non-surfaced	Total	State	Local	Federal[a]	
Michigan								
1967	18,998	76,468	18,429	94,897	7,968	86,929	0	113,895
1968	19,145	76,768	18,257	95,025	7,952	87,071	2	114,170
1969	19,795	77,698	17,069	94,767	7,972	86,793	2	114,562
1970	19,939	77,472	17,318	94,790	7,971	86,817	2	114,729
1971	20,115	77,312	17,637	94,949	7,977	86,970	2	115,064
1972	20,232	80,732	17,096	97,828	7,968	87,200	2,660	118,060
1973	19,601	81,809	16,900	98,709	8,014	88,035	2,660	118,310
1974	19,916	81,935	16,740	98,675	8,243	87,972	2,460	118,591
1975	19,982	82,771	16,037	98,808	8,300	88,048	2,460	118,790
1976	20,053	83,624[b]	15,321[b]	98,945	8,316	88,169	2,460	118,998
1977	20,097	48,062[b]	51,006[b]	99,068	8,336	88,272	2,460	119,165
United States								
1967	521,203	2,336,433	847,278	3,183,711	698,704	2,320,753	164,254	3,704,914
1968	532,038	2,361,855	790,192	3,152,047	702,280	2,274,495	175,272	3,684,085
1969	548,573	2,391,325	770,401	3,161,726	704,371	2,274,709	182,676	3,710,299
1970	560,670	2,411,072	758,340	3,169,412	707,002	2,274,714	187,696	3,730,082
1971	593,047	2,415,878	750,017	3,165,895	712,785	2,256,271	196,839	3,758,942
1972	613,426	2,433,205	740,082	3,173,287	712,093	2,252,023	209,171	3,786,713
1973	631,129	2,436,070	739,684	3,175,754	710,461	2,249,446	215,747	3,806,883
1974	637,655	2,452,247	725,905	3,178,152	706,295	2,247,709	224,148	3,815,807
1975	639,550	2,483,355	715,241	3,198,596	710,797	2,260,544	227,255	3,838,146
1976	648,321	2,508,903	700,132	3,209,035	711,406	2,263,788	233,841	3,857,356
1977	687,328	2,498,428	681,411	3,179,839	702,215	2,235,670	242,147	3,867,400[c]

SOURCE: Federal Highway Administration, Highway Statistics, 1964 through 1974 (Washington, D.C.: annually), Tables M-1 and 3 (1974), and special release (1975 and 1976).

a. Comprises mileage of roads not forming a part of state or local highway systems.

b. The decrease in surfaced roads in Michigan is due to the surface type reclassification of approximately 36,000 miles of county roads.

c. 233 miles were unclassified by surface.

TABLE XVII-7. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972

Vehicle and operational characteristics	Number of trucks and truck-miles			Number of trucks and truck-miles excluding pickups and panels		
	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)
Major use						
Agriculture	96	716	7.5	27	175	6.5
Forestry and lumbering	6	80	12.5	3	52	16.0
Mining	--	--	--	--	--	--
Construction	61	806	13.3	29	371	13.0
Manufacturing	20	408	20.9	12	258	21.4
Wholesale and retail trade	58	1,093	18.7	28	605	21.3
For hire	27	1,080	40.2	23	1,014	43.6
Personal transportation	326	3,685	11.3	3	8	2.5
Utilities	17	193	11.5	13	157	11.6
Services	57	793	13.9	16	221	13.7
All other	9	--	--	5	--	--
Annual miles						
Less than 5,000	123	273	2.2	39	91	2.4
5,000 - 9,999	167	1,139	6.8	34	232	6.9
10,000 - 19,999	273	3,514	12.9	41	541	13.1
20,000 - 29,999	70	1,596	22.7	20	454	23.0
30,000 - 49,999	26	902	35.3	12	424	36.3
50,000 - 74,999	10	592	59.5	8	473	60.5
75,000 or more	9	960	110.4	8	727	96.6
Range of operation						
Local	543	5,932	10.9	119	1,337	11.2
Short range	65	1,538	23.6	26	874	33.3
Long range	22	762	35.1	9	623	67.2
Not reported	47	744	15.9	6	109	19.4

TABLE XVII-7. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972 (cont.)

Vehicle and operational characteristics	Number of trucks and truck-miles			Number of trucks and truck-miles excluding pickups and panels		
	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)
Type of fuel						
Gasoline	604	6,973	11.6	128	1,571	12.2
Diesel and LPG	24	1,232	51.1	24	1,227	51.1
Not reported	49	771	15.6	7	144	19.3
Principal products carried						
Farm products	96	853	8.8	30	283	9.4
Mining products	1	10	12.6	1	7	11.8
Forest products	8	97	12.6	3	52	16.8
Processed foods	16	360	22.7	10	261	27.3
Textile products	5	97	20.0	1	15	25.5
Building materials	61	862	14.2	28	432	15.4
Household goods	8	99	12.0	3	39	14.9
Furniture	3	78	27.8	2	67	28.7
Paper products	5	127	27.4	1	53	38.9
Chemicals	6	115	20.5	2	41	23.4
Petroleum	8	211	24.8	8	198	26.3
Primary metal products	5	132	27.8	3	99	36.6
Fabricated metal products	10	199	19.6	6	119	21.2
Machinery (except electrical)	3	50	17.2	2	20	12.1
Electrical machinery	8	112	13.6	3	48	14.9
Transportation equipment	28	521	18.9	5	249	47.0
Scrap, refuse, or garbage	18	163	8.9	7	77	11.3
Mixed cargo	26	501	19.5	10	327	31.3
Personal transport	312	3,619	11.6	20	245	12.1

TABLE XVII-7. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972 (cont.)

Vehicle and operational characteristics	Number of trucks and truck-miles			Number of trucks and truck-miles excluding pickups and panels		
	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)	Trucks (thousands)	Truck-miles (millions)	Average miles per truck (thousands)
Other	31	507	16.6	11	224	20.0
Not reported	21	265	12.8	5	88	16.5
TOTAL	677	8,975	13.3	160	2,942	18.4

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1972, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1973), TC72-T23, Table 2.

NOTE: Total number of trucks registered in 1972 represents the total registrations during 1971 compiled by the Federal Highway Administration projected for 1972 by the Bureau of the Census. For reports issued prior to June 1973, this is a projected total. All other data are proportion estimates derived from the Truck Inventory and Use Survey. Data relate to the state of registration, which is, in most cases, the base of operations. However, some trucks that are registered in a given state are actually based in another and/or operate interstate. Data are subject to sampling variability.

--: Indicates that there were not a significant number of trucks with this characteristic to display, that is, fewer than 100 total observations in sample or less than .05 percent of the total in any one cell.

TABLE XVII-10. MEANS OF TRANSPORTATION TO WORK OF MICHIGAN WORKERS, BY URBAN, RURAL NONFARM, AND RURAL FARM RESIDENCE: WEEK PRIOR TO 1 APRIL 1970

Means	Urban	Rural nonfarm	Rural farm	Total
Private automobile				
Driver	1,762,673	497,217	89,573	2,349,647
Passenger	275,295	67,347	10,863	353,505
Bus or streetcar	135,976	2,008	317	138,301
Subway or elevated train	305	68	10	383
Railroad	1,215	147	26	1,338
Taxicab	6,508	171	49	6,728
Walked only	147,928	32,003	5,162	185,093
Other means	36,695	17,673	4,338	58,706
Worked at home	34,753	16,570	28,167	79,490
TOTAL	2,401,348	633,204	138,689	3,173,241

SOURCE: Bureau of the Census, U.S. Census of Population, 1970, General Social and Economic Characteristics, Michigan (Washington, D.C: 1972), Final Report PC(I)-C24, Table 50.

TABLE XVII-11. NUMBER OF PERSON-TRIPS AND PERSON-NIGHTS OF TRAVELERS TO AND THROUGH MICHIGAN, BY MEANS OF TRANSPORT, PURPOSE OF TRIP, AND ROUND-TRIP DISTANCE: 1972

Item	Destination: In Michigan Person-trips	In Michigan Person-nights	In other states Person-trips	In other states Person-nights
Means of transport				
Auto/truck (without camping equipment)	17,592	49,267	796	1,813
Auto/truck (with camping equipment)	1,318	6,246	253	733
Bus	248	1,365	21	55
Train	18	79	6	6
Air	927	5,065	87	674
Other	92	628	12	49
Purpose of trip				
Visit friends and relatives	7,079	22,151	284	1,424
Business and conventions	2,893	6,027	214	330
Outdoor recreation	4,339	17,233	212	543
Sightseeing and entertainment	1,385	2,830	402	865
Other	4,499	14,410	64	168
Round-trip distance				
200 - 399 miles	10,150	18,604	9	21
400 - 599 miles	5,069	16,150	57	89
600 - 799 miles	2,143	8,508	48	84
800 - 999 miles	891	4,539	21	47
1,000 - 1,999 miles	1,522	9,564	159	386
2,000 miles and over	419	5,285	519	1,543
Outside United States	(X)	(X)	363	1,159
TOTAL	20,195	62,650	1,176	3,329

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1972, National Travel Survey, Travel during 1972 (Washington, D.C.: 1972), TC72-N3, Table 46.

NOTE: A trip is defined to include travel out of town to a place at least 100 miles away from home. It is an occasion on which one member of the household, or more, go together on a trip. The term person-trip represents a person on a trip. For example, if three persons from the same household go together on a trip, the volume of travel is counted as three person-trips. Person-nights indicates the number of nights spent by persons on trips. For example, if two persons took a trip that involved being away from home five nights, the travel would be counted as 10 person-nights.

TABLE XVII-12. NUMBER OF PERSON-TRIPS AND PERSON-NIGHTS OF UNITED STATES TRAVELERS, BY FAMILY INCOME, OCCUPATION OF HOUSHOLD HEAD, AND AGE OF TRAVELER, MICHIGAN AND THE UNITED STATES: 1972

Item	Michigan		United States	
	Person-trips	Person-nights	Person-trips	Person-nights
Family income				
Under $5,000	1,523	6,162	38,175	194,501
$5,000 to $7,499	2,067	6,652	57,890	220,161
$7,500 to $9,999	3,656	12,081	74,053	280,090
$10,000 to $14,999	7,965	21,537	149,126	531,816
$15,000 and over	5,061	16,419	120,203	470,510
No answer	1,098	3,127	19,036	84,821
Occupation of head of household				
Professional, technical manager	6,000	20,360	179,814	657,255
Farm owners, managers, laborers	707	1,001	11,213	32,926
Clerical, sales	3,203	9,165	71,113	232,774
Craftsmen, operatives, laborers	7,850	20,705	120,479	415,514
Household and service employees	1,153	3,122	15,318	63,060
Retired persons	1,733	8,015	28,798	216,397
Others	727	3,612	31,748	163,973
Age of traveler				
Under 18 years	5,748	19,401	110,595	439,489
18 - 24 years	1,655	5,012	38,435	143,568
25 - 34 years	3,706	9,451	76,708	251,579
35 - 44 years	2,762	7,782	72,872	229,591
45 - 54 years	3,373	8,598	77,161	258,304
55 - 64 years	2,364	6,878	44,952	212,213
65 years and over	1,021	6,581	22,396	182,876
No answer	742	2,276	15,364	64,280
TOTAL	21,371	65,979	458,483	1,781,900

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1972, National Travel Survey, Travel during 1972 (Washington, D.C., 1972), TC72-N3, Tables 2 and 46.

NOTE: A trip is defined to include travel out of town to a place at least 100 miles away from home. It is an occasion on which one member of the household, or more, go together on a trip. The term person-trip represents a person on a trip. For example, if three persons from the same household go together on a trip, the volume of travel is counted as three person-trips. Person-nights indicates the number of nights spent by persons on trips. For example, if two persons took a trip that involved being away from home five nights, the travel would be counted as 10 person-nights.

TABLE XVII-13. PASSENGER CAR REGISTRATIONS IN MICHIGAN, DISTRIBUTED BY AGE OF CAR: 1 OCTOBER 1973-1977

(In thousands)

Age of car	1973	1974	1975	1976	1977
0-1	675.7	543.7	434.3	551.5	609.2
1-2	601.5	669.5	566.5	441.0	552.7
2-3	497.4	577.3	643.8	540.6	415.5
3-4	439.4	473.1	554.8	612.1	507.4
4-5	450.3	415.9	451.8	526.6	570.4
5-6	409.2	419.8	394.2	423.2	485.7
6-7	329.0	374.3	390.1	364.4	379.3
7-8	310.8	288.8	340.5	347.5	316.9
8-9	274.3	253.0	252.1	292.5	284.2
9-10	159.4	206.2	206.3	205.3	229.1
10-11	101.0	111.0	158.9	157.8	153.2
11-12	56.1	66.0	81.9	115.4	112.1
12-13	22.3	36.1	48.0	58.6	79.3
13-14	15.0	14.2	26.0	34.0	40.6
Over 14	33.5	36.9	43.1	55.8	67.7
TOTAL	4,374.9	4,485.8	4,592.3	4,726.3	4,803.3
Average age	4.43	4.66	4.86	5.00	5.04
U.S. average age	5.61	5.69	5.96	6.13	6.18[a]

SOURCE: Michigan Energy Administration, special release.

NOTE: These numbers have been adjusted to correct descrepancies in Department of State statistics. Totals are adjusted to reflect 1 October registrations instead of 31 December registration.

a. Estimated.

TABLE XVII-14. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1978

County	Passenger	Commercial	Trailer	Motorcycle	Total
Alcona	5,238	1,975	1,655	257	9,125
Alger	4,434	2,129	1,139	328	8,030
Allegan	37,748	14,043	8,396	2,329	62,516
Alpena	16,977	6,212	5,011	1,128	29,328
Antrim	8,785	3,003	2,660	590	15,038
Arenac	6,946	2,866	2,192	403	12,407
Baraga	4,086	1,829	936	277	7,128
Barry	20,929	7,787	5,682	1,620	36,018
Bay	65,141	16,169	16,085	3,138	100,533
Benzie	6,119	2,194	1,664	360	10,337
Berrien	93,895	25,654	16,101	4,405	140,055
Branch	20,929	8,045	6,417	1,423	36,814
Calhoun	79,269	19,007	14,999	4,833	118,108
Cass	24,362	9,220	5,370	1,868	40,820
Charlevoix	10,675	3,763	2,672	799	17,909
Cheboygan	11,058	4,045	3,284	805	19,192
Chippewa	14,112	5,519	3,992	920	24,543
Clare	11,193	4,385	3,281	628	19,487
Clinton	26,874	9,698	7,376	2,296	46,244
Crawford	4,723	1,732	1,410	269	8,134
Delta	19,385	7,563	6,452	1,155	34,555
Dickinson	13,967	4,875	3,701	1,012	23,555
Eaton	40,793	11,872	9,551	3,103	65,319
Emmet	12,760	4,171	2,980	841	20,752
Genesee	255,405	55,747	44,251	12,825	368,228
Gladwin	8,933	3,710	3,019	588	16,250
Gogebic	9,254	3,614	2,055	476	15,399
Grand Traverse	31,975	9,245	8,412	1,863	51,495
Gratiot	20,019	7,546	5,759	1,599	34,923
Hillsdale	20,852	8,158	5,915	1,507	36,432
Houghton	15,964	4,961	2,668	981	24,574
Huron	19,553	7,464	5,988	1,215	34,220
Ingham	148,181	28,935	20,416	8,062	205,594
Ionia	23,229	8,190	5,722	2,088	39,229
Iosco	14,905	4,621	4,367	926	24,819
Iron	7,239	3,148	1,891	418	12,696
Isabella	21,127	6,926	5,192	1,245	34,490
Jackson	79,744	20,783	15,190	4,720	120,437
Kalamazoo	115,427	25,201	17,866	6,773	165,267
Kalkaska	5,373	2,738	1,748	303	10,162

TABLE XVII-14. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1978 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Kent	256,033	51,996	47,728	13,664	369,421
Keweenaw	1,021	358	228	66	1,673
Lake	3,606	1,425	1,047	189	6,267
Lapeer	31,901	11,404	7,372	2,481	53,158
Leelanau	6,889	2,392	1,947	364	11,592
Lenawee	47,530	15,391	9,982	3,006	75,909
Livingston	47,435	13,531	8,867	2,816	72,649
Luce	3,065	1,475	1,137	170	5,847
Mackinac	4,575	1,999	1,467	358	8,399
Macomb	428,136	58,859	46,759	16,236	549,990
Manistee	12,009	3,873	2,909	593	19,384
Marquette	34,760	11,899	6,524	2,811	55,994
Mason	13,061	4,441	3,352	977	21,831
Mecosta	13,498	4,828	3,504	697	22,527
Menominee	12,961	4,722	3,363	753	21,799
Midland	40,528	9,387	10,320	2,340	62,575
Missaukee	4,561	2,327	1,389	318	8,595
Monroe	69,381	19,659	14,625	4,156	107,821
Montcalm	22,912	8,679	6,558	1,772	39,921
Montmorency	3,964	1,847	1,333	228	7,372
Muskegon	84,982	20,223	17,411	5,218	127,834
Newaygo	16,279	6,639	4,676	1,256	28,850
Oakland	629,459	94,339	66,532	23,795	814,125
Oceana	9,946	4,204	2,294	738	17,182
Ogemaw	8,153	3,411	2,694	541	14,799
Ontonagon	5,025	2,207	1,569	243	9,044
Osceola	8,343	3,715	2,389	626	15,073
Oscoda	3,554	1,569	1,132	246	6,501
Otsego	7,696	3,061	2,038	496	13,291
Ottawa	82,100	20,495	19,565	5,139	127,299
Presque Isle	7,107	3,087	2,053	406	12,653
Roscommon	9,218	3,334	3,084	545	16,181
Saginaw	124,466	26,594	25,347	5,745	182,152
St. Clair	71,734	18,339	13,090	4,088	107,251
St. Joseph	28,956	10,315	6,473	2,117	47,861
Sanilac	19,911	7,754	5,135	1,364	34,164
Schoolcraft	4,620	1,812	1,402	319	8,153
Shiawassee	36,900	12,222	8,184	2,849	60,155
Tuscola	27,424	11,525	8,333	1,959	49,241
Van Buren	32,374	12,118	6,347	1,917	52,756

TABLE XVII-14. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1978 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Washtenaw	141,863	25,102	15,042	6,858	188,865
Wayne	1,317,940	166,517	119,635	40,806	1,644,898
Wexford	13,013	4,321	3,748	896	21,978
Nonresident	20,440	9,852	16,183	168	46,643
TOTAL	5,126,907	1,081,990	818,232	242,706	7,269,835

SOURCE: Michigan Department of State, special release.

TABLE XVII-15. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE: 1973-1978

Type	1973	1974	1975	1976	1977	1978
Passenger	4,404,757	4,514,331	4,598,247	4,681,236	4,890,094	5,126,907
Commercial	762,484	817,169	857,460	911,734	987,822	1,081,990
Trailer	705,990	722,175	774,265	760,302	811,224	818,232
Motorcycle	262,742	306,297	288,734	268,938	260,816	242,706
Municipal	12,250	14,609	15,924	69,649	9,571	n.a.
TOTAL	6,148,223	6,374,581	6,534,630	6,691,859	6,959,527	7,269,835

SOURCE: Michigan Department of State, special release.

n.a.: not available.

TABLE XVII-16. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1974-1978

Sex	Date of computer run 6/25/74	6/24/75	6/26/76	7/1/77	7/1/78
Number of master driving records on file (including lapsed)					
Males	3,358,024	3,382,801	3,416,672	3,455,866	3,505,728
Females	2,786,118	2,852,965	2,924,175	2,993,135	3,065,784
Both	6,144,142	6,235,766	6,340,847	6,449,001	6,571,512
Estimated population of active Michigan drivers					
Males	3,139,000	3,166,000	3,200,500	3,238,221	3,273,625
Females	2,711,000	2,784,000	2,849,500	2,911,779	2,976,375
Both	5,850,000	5,950,000	6,050,000	6,150,000	6,250,000
Studied drivers (drivers with valid licenses and/or violations during past year)					
Males	2,966,928	2,994,505	3,057,949	3,100,225	3,151,904
Females	2,565,671	2,628,239	2,723,556	2,787,587	2,858,094
Both	5,532,599	5,622,744	5,781,505	5,887,812	6,009,998
Studied drivers with operator licenses only					
Males	2,433,171	2,428,205	2,450,181	2,471,763	2,505,414
Females	2,524,083	2,581,846	2,671,399	2,731,197	2,797,800
Both	4,957,254	5,010,051	5,121,580	5,202,960	5,303,214
Studied drivers with chauffeur licenses only					
Males	265,188	265,814	275,173	277,634	286,846
Females	15,597	17,554	19,757	21,991	25,211
Both	280,785	283,368	294,930	299,625	312,057
Studied drivers with operator/cycle endorsement					
Males	215,966	246,087	272,513	285,406	288,789
Females	20,959	25,055	28,816	30,537	30,902
Both	236,925	271,142	301,329	315,943	319,691
Studied drivers with chauffeur/cycle endorsement					
Males	34,481	41,888	50,005	55,455	59,603
Females	645	828	1,055	1,257	1,432
Both	35,126	42,716	51,060	56,712	61,035
Studied drivers with glasses required					
Males	942,035	954,898	982,547	991,793	1,004,776
Females	1,025,268	1,059,750	1,107,968	1,127,818	1,154,526
Both	1,967,303	2,014,648	2,090,515	2,119,611	2,159,302

TABLE XVII-16. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1974-1978 (cont.)

Sex	Date of computer run				
	6/25/74	6/24/75	6/26/76	7/1/77	7/1/78
Drivers convicted of driving while under influence of liquor in past year[a]					
Males	11,599	10,211	9,906	9,116	10,329
Females	746	715	602	654	730
Both	12,345	10,926	10,508	9,770	11,059
Drivers convicted of impaired (liquor) driving in past year[a]					
Males	18,636	19,936	21,234	21,284	20,541
Females	1,392	1,555	1,800	1,826	1,844
Both	20,028	21,491	23,034	23,110	22,385
Crash drivers rated as having been drinking (to some extent) during past year[a]					
Males	41,430	40,492	42,856	44,710	45,379
Females	5,316	5,322	5,991	6,479	6,886
Both	46,746	45,814	48,847	51,189	52,265
Drivers with no crashes or violation convictions during past year[a]					
Males	2,146,002	2,217,825	2,280,007	2,303,109	2,323,207
Females	2,237,836	2,321,751	2,402,618	2,449,421	2,503,242
Both	4,383,838	4,539,576	4,682,625	4,752,530	4,826,449
Drivers with no crashes during past year[a]					
Males	2,628,568	2,685,035	2,749,101	2,759,106	2,802,971
Females	2,411,540	2,484,633	2,574,242	2,618,152	2,681,703
Both	5,040,108	5,169,668	5,323,343	5,377,248	5,484,674
Drivers with no violation convictions during past year[a]					
Males	2,334,149	2,394,826	2,459,076	2,503,481	2,526,458
Females	2,346,253	2,425,106	2,510,036	2,572,005	2,631,228
Both	4,680,402	4,819,932	4,969,112	5,075,486	5,157,686
Drivers with one crash during past year[a]					
Males	302,062	278,786	278,546	306,098	313,008
Females	145,310	135,721	141,053	159,696	166,178
Both	447,372	414,507	419,599	465,794	479,186
Drivers with one violation conviction during past year[a]					
Males	460,954	442,960	446,833	446,554	460,270
Females	189,473	176,691	185,516	187,439	196,130
Both	650,427	619,651	632,349	633,993	656,400

TABLE XVII-8. PERCENTAGE DISTRIBUTION OF MOTOR TRUCKS IN MICHIGAN, BY BODY TYPE AND MAJOR USE: 1972

Body type	Major use							
	Personal transportation	Agri-culture	Construction	Manu-facturing	Wholesale and retail trade	Services	"For hire"	Total
Pickup and panel[a]	99.0	71.9	53.1	38.3	51.2	71.8	13.4	76.4
Platform and cattle rack	.5	24.4	20.2	26.7	12.7	4.7	15.1	9.1
All vans	--	.9	4.8	23.7	18.0	4.9	48.2	5.4
Dump trucks	.1	1.5	14.5	4.9	2.0	2.2	2.5	2.4
Tank trucks	--	.1	.8	.5	8.8	.5	4.7	1.1
Auto transport	.3	--	--	1.5	.2	.2	11.5	.7
Utility trucks	--	--	2.7	.5	.2	4.1	--	2.3
All other	.1	1.2	3.9	3.9	6.9	11.6	4.6	2.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1972, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1973), TC72-T23, Table 4.

a. Includes multistop and walk-in.

--: Indicates less than .05 percent.

TABLE XVII-9. PERCENTAGE DISTRIBUTION OF MOTOR TRUCKS IN MICHIGAN, BY MAJOR USE AND ANNUAL MILEAGE: 1972

Major use	Annual mileage class							
	Less than 5,000	5,000 - 9,999	10,000 - 19,999	20,000 - 29,999	30,000 - 49,999	50,000 - 74,999	75,000 or more	Total
Agriculture	31.4	18.7	7.9	4.7	3.0	1.9	4.4	14.2
Forestry and lumbering	1.6	.5	1.0	.5	1.9	1.9	--	.9
Mining	--	--	--	--	--	--	--	--
Construction	8.4	8.4	8.9	9.5	18.2	5.8	2.2	9.0
Manufacturing	1.7	2.3	2.5	3.4	12.5	7.8	6.7	2.9
Wholesale and retail trade	3.0	6.4	8.4	17.0	26.1	12.6	13.3	8.6
For hire	.9	1.8	2.1	4.8	15.1	48.5	56.6	4.0
Personal transportation	44.6	47.2	57.6	43.0	6.8	18.6	11.2	48.1
Utilities	.9	3.7	2.6	2.8	.8	--	1.1	2.5
Services	5.0	9.4	8.0	13.7	14.8	--	2.2	8.5
All other	2.5	1.8	1.0	.6	.8	2.9	2.2	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1972, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1973), TC72-T23, Table 6.

--: Indicates less than .05 percent.

TABLE XVII-16. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1974-1978 (cont.)

Sex	Date of computer run				
	6/25/74	6/24/75	6/26/76	7/1/77	7/1/78
	Drivers with two or more crashes during past year[a]				
Males	36,298	30,684	30,302	35,021	35,925
Females	8,821	7,885	8,261	9,739	10,213
Both	45,119	38,569	38,563	44,760	46,138
	Drivers with two or more violation convictions during past year[a]				
Males	171,825	156,719	152,040	150,190	165,176
Females	29,945	26,442	28,004	28,143	30,736
Both	201,770	183,161	180,044	178,333	195,912

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No. 11 (Lansing: 1979), pp. 14-20.

a. Calendar years 1973, 1974, 1975, 1976, and 1977, respectively.

TABLE XVII-17. CHARACTERISTICS OF HOLDERS OF MICHIGAN MOTOR VEHICLE OPERATORS' LICENSES: 1978

Item	Males	Females	Total
Overall Michigan Driver Population			
Number of records of drivers 7/1/78	3,505,728	3,065,784	6,571,512
Est. driver population 7/1/78	3,273,625	2,976,375	6,250,000
Studied drivers of record 7/1/78	3,151,904	2,858,094	6,009,998
Median ages of drivers 7/1/78	35	35	35
Accident/violation free drivers 1977	38.7%	41.7%	80.3%
Accident free drivers 1977	46.6%	44.6%	91.3%
Violation free drivers 1977	42.0%	43.8%	85.8%
Percentages of drivers of record with the following characteristics			
General 7/1/78			
With original licenses	5.8	5.4	11.2
With operator licenses	41.7	46.6	88.2
With chauffeur licenses	4.8	0.4	5.2
With operator cycle licenses	4.8	0.5	5.3
With chauffeur cycle licenses	1.0	0.02	1.0
Glasses required	16.7	19.2	35.9
Daylight driving only	0.11	0.06	0.2
Handicap restrictions	0.3	0.2	0.4
With 1977 records of:			
Driving on probation	4.1	3.9	8.1
Failed probation	0.12	0.02	0.14
Sent warning letter	2.9	0.9	3.9
Reexamined	1.0	0.1	1.1
Suspended - FAC[a]	1.1	0.3	1.4
Convicted - DUIL[b]	0.17	0.1	0.18
Convicted - DWI[c]	0.34	0.03	0.37
Reckless Driving	0.08	0.004	0.08
Careless driving	0.26	0.03	0.29
Driving while license suspended/ revoked/denied	0.21	0.01	0.22
Speeding	6.4	2.3	8.8
Speeding, energy speed	2.5	0.7	3.2
Reexamined, first time	0.64	0.08	0.73
Involved in fatal type crash	0.019	0.005	0.02
Involved in bodily injury type crash	1.9	1.0	2.9
Accident with alcohol	0.8	0.1	0.9
Accident with alcohol fatal type	0.005	0.000	0.006
Accident with alcohol bodily injury type crash	0.332	0.054	0.386
Implied consent refusal suspension	0.094	0.007	0.101

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No.11 (Lansing: 1979), p. 2.

a. Failure to appear in court.
b. Driving under the influence of liquor.
c. Driving with an impairment (due to liquor).

TABLE XVII-18. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1978

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1962-63	1.381	1.346	2.727	15-16[a]
1961	1.470	1.275	2.745	17[a]
1960	1.464	1.300	2.764	18[a]
1959	1.469	1.310	2.779	19
1958	1.501	1.347	2.848	20
1957	1.535	1.396	2.931	21
1956	1.523	1.399	2.922	22
1955	1.464	1.336	2.800	23
1954	1.444	1.333	2.777	24
1953	1.400	1.283	2.683	25
1952	1.363	1.263	2.626	26
1951	1.337	1.237	2.574	27
1950	1.271	1.184	2.455	28
1949	1.245	1.162	2.407	29
1948	1.227	1.167	2.394	30
1947	1.279	1.212	2.491	31
1946	1.127	1.058	2.185	32
1945	0.932	0.877	1.809	33
1944	0.946[b]	0.887[b]	1.833[b]	34
1943	1.004[b]	0.954[b]	1.958[b]	35
1942	0.985	0.932	1.917	36
1941	0.865	0.818	1.683	37
1940	0.805	0.761	1.566	38
1939	0.764	0.721	1.485	39
1938	0.770	0.732	1.502	40
1937	0.726	0.694	1.420	41
1936	0.706	0.679	1.385	42
1935	0.717	0.682	1.399	43
1934	0.694	0.660	1.354	44
1933	0.659	0.626	1.285	45
1932	0.694	0.662	1.356	46
1931	0.697	0.663	1.360	47
1930	0.745	0.695	1.440	48
1929	0.727	0.683	1.410	49
1928	0.755	0.685	1.440	50

TABLE XVII-18. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1978 (cont.)

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1927	0.779	0.706	1.485	51
1926	0.755	0.691	1.446	52
1925	0.754	0.693	1.447	53
1924	0.759	0.700	1.459	54
1923	0.729	0.663	1.392	55
1922	0.722	0.649	1.371	56
1921	0.728	0.667	1.395	57
1920	0.677	0.615	1.292	58
1919	0.604	0.564	1.168	59
1918	0.637	0.579	1.216	60
1917	0.595	0.533	1.128	61
1916	0.581	0.511	1.092	62
1915	0.556	0.485	1.041	63
1914	0.544	0.464	1.008	64
1913	0.500	0.424	0.924	65
1912	0.471	0.406	0.877	66
1911	0.418	0.354	0.772	67
1910	0.402	0.347	0.749	68
1909	0.371	0.316	0.687	69
1908	0.354	0.301	0.655	70
1907	0.328	0.269	0.597	71
1906	0.296	0.245	0.541	72
1905	0.279	0.222	0.501	73
1904	0.262	0.200	0.462	74
1903	0.234	0.172	0.406	75
1902	0.215	0.152	0.367	76
1901	0.174	0.122	0.296	77
1900	0.172	0.121	0.293	78
1899	0.132	0.087	0.219	79
1898	0.130	0.084	0.214	80
1897	0.106	0.062	0.168	81
1896	0.096	0.054	0.150	82
1895	0.082	0.041	0.123	83
1894	0.063	0.031	0.094	84
1893	0.051	0.022	0.073	85

TABLE XVII-18. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1978 (cont.)

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1892	0.041	0.019	0.060	86
1891	0.029	0.011	0.040	87
1890	0.021	0.008	0.029	88
1889	0.015	0.005	0.020	89
1888	0.010	0.003	0.013	90
1887	0.006	0.002	0.008	91
1886	0.004	0.001	0.005	92
1885	0.002	0.001	0.003	93
1884	0.001	0.001	0.002	94
1883 and older	0.002	0.000+	0.002	95 & older
ALL DRIVERS	52.378	47.622	100.000	15-oldest

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No. 11 (Lansing: 1979), pp. 23-25.

a. Driver population percentages under 19 have been adjusted upward from the actual studied driver percentages of populations to reflect the incidence of active young drivers in Michigan more realistically.

b. Median ages of drivers.

TABLE XVII-19. MOTOR VEHICLE ACCIDENTS AND MILEAGE AND DEATH RATE IN MICHIGAN: 1942-1978

Year	Deaths	Injuries	Accidents	Estimated mileage (millions)	Death rate[a]
1942	1,325	28,967	100,125	13,900.3	9.5
1943	992	21,988	71,450	10,530.0	9.4
1944	1,034	23,401	72,013	10,651.0	9.7
1945	1,150	27,755	83,160	11,915.6	9.7
1946	1,470	34,479	110,531	16,191.1	9.1
1947	1,447	38,195	137,619	17,661.1	8.2
1948	1,512	40,892	140,172	19,069.2	7.9
1949	1,441	41,647	143,197	19,990.4	7.2
1950	1,605	45,734	161,750	21,494.5	7.5
1951	1,640	48,418	176,587	22,668.1	7.2
1952	1,736	49,119	160,829	23,093.1	7.5
1953	1,905	57,834	184,174	25,346.9	7.5
1954	1,793	56,444	185,534	26,041.2	6.9
1955	2,016	62,234	196,812	28,282.5	7.1
1956	1,746	61,158	197,995	28,429.3	6.1
1957	1,548	60,067	191,915	29,252.2	5.3
1958	1,382	57,767	177,934	29,411.3	4.7
1959	1,473	64,873	198,771	30,679.0	4.8
1960	1,604	91,026	209,724	31,842.4	5.0
1961	1,567	93,350	199,973	32,101.5	4.9
1962	1,574	108,143	233,078	34,498.0	4.6
1963	1,887	126,896	261,794	36,452.2	5.2
1964	2,122	144,623	284,444	38,617.6	5.5
1965	2,136	155,258	310,598	40,857.4	5.2
1966	2,298	156,694	302,880	43,940.1	5.2
1967	2,137	151,297	299,004	45,053.6	4.7
1968	2,392	160,413	305,495	48,047.4	5.0
1969	2,487	175,400	331,223	50,904.9	4.9
1970	2,177	161,719	313,715	53,148.1	4.1
1971	2,152	157,664	314,015	55,539.7	3.9
1972	2,258	178,929	359,745	57,817.1	3.9
1973	2,213	169,485	350,864	58,478.4	3.8
1974	1,825	141,132	324,763	55,748.7	3.4
1975	1,811	147,299	333,560	56,260.5	3.2
1976	1,955	162,894	365,600	61,827.4	3.2
1977	1,950	166,389	374,751	64,800.0	3.0
1978	2,076	169,202	389,193	67,375.0	3.1

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts, 1975 (Lansing: 1976), p. 56, and special release (1976-1978 data).

a. Deaths per 100 million miles of travel.

TABLE XVII-20. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED AND PERSONS INJURED, IN MICHIGAN, BY TYPE OF ACCIDENT: 1978

Type of accident	Number of accidents				Number of persons			
						Injured		
	Fatal	Injury	Property damage	Total	Killed	Incapacitated	Nonincapacitated	Possibly[a]
Motor vehicle:								
Overturned	123	6,658	4,861	11,642	130	2,028	3,703	3,198
Other noncollision	13	679	997	1,689	13	227	336	199
Motor vehicle collision with:								
Pedestrian	323	5,108	194	5,625	324	1,928	1,902	1,681
Motor vehicle in transport	802	71,737	179,061	251,600	983	13,476	32,435	72,380
Motor vehicle - other roadway	5	49	44	98	6	36	38	49
Parked motor vehicle	58	5,438	38,016	43,512	64	896	2,841	3,268
Railroad train	28	210	296	534	33	98	119	84
Pedalcyclist	57	3,515	605	4,177	60	763	1,819	1,141
Animal	2	548	16,646	17,196	2	103	237	312
Fixed object	418	18,184	33,791	52,393	457	5,132	10,360	8,254
Other object	4	133	590	727	4	31	66	67
TOTAL	1,833	112,259	275,101	389,193	2,076	24,718	53,851	90,633

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts, 1978 (Lansing: forthcoming).

a. No visible injury but complaint of pain or momentary unconciousness.

TABLE XVII-21. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1978

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Alcona	6	92	308	0	234	172	406	7	134
Alger	3	116	281	0	169	231	400	4	162
Allegan	19	767	2,046	151	1,869	812	2,832	20	1,117
Alpena	8	315	823	0	639	507	1,146	9	461
Antrim	4	174	433	0	339	272	611	6	258
Arenac	7	204	563	111	365	298	774	10	364
Baraga	3	89	278	0	204	166	370	4	145
Barry	12	414	1,201	0	1,054	573	1,627	14	640
Bay	28	1,563	3,615	258	3,071	1,877	5,206	32	2,296
Benzie	2	121	372	0	249	246	495	2	188
Berrien	40	2,037	6,078	856	5,044	2,255	8,155	41	3,052
Branch	10	476	1,330	130	1,108	578	1,816	11	688
Calhoun	24	1,741	4,944	1,115	4,616	978	6,709	28	2,586
Cass	21	557	1,595	0	1,235	938	2,173	24	844
Charlevoix	11	197	571	0	431	348	779	13	327
Cheboygan	8	233	530	127	390	254	771	9	330
Chippewa	5	268	930	296	738	169	1,203	5	380
Clare	9	321	990	0	670	650	1,320	13	488
Clinton	22	538	1,472	171	1,221	640	2,032	24	834
Crawford	6	154	430	191	247	152	590	9	255
Delta	13	454	1,350	0	1,190	627	1,817	17	675
Dickinson	3	294	761	0	563	495	1,058	3	435
Eaton	21	965	2,128	308	1,511	1,295	3,114	28	1,471
Emmet	6	286	781	9	504	560	1,073	7	439
Genesee	87	5,168	12,301	1,002	12,133	4,421	17,556	104	7,954

TABLE XVII-21. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1978 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Gladwin	2	171	571	0	402	342	744	2	264
Gogebic	4	179	631	0	462	352	814	5	252
Grand Traverse	15	946	2,133	0	1,873	1,221	3,094	16	1,476
Gratiot	12	419	1,236	0	947	720	1,667	12	648
Hillsdale	10	503	1,334	0	1,202	645	1,847	12	794
Houghton	6	271	1,143	0	515	905	1,420	8	406
Huron	9	332	945	0	661	625	1,286	11	490
Ingham	31	3,286	9,638	1,520	7,547	3,888	12,955	35	4,777
Ionia	11	501	1,615	133	1,396	598	2,127	12	743
Iosco	7	293	1,040	0	674	666	1,340	8	455
Iron	1	112	403	0	254	262	516	3	168
Isabella	11	550	1,458	0	1,253	766	2,019	11	860
Jackson	34	1,928	5,164	1,144	4,708	1,274	7,126	36	2,796
Kalamazoo	41	2,422	7,672	1,006	7,348	1,781	10,135	45	3,548
Kalkaska	4	133	411	0	309	239	548	4	198
Kent	72	4,912	16,464	935	15,078	5,435	21,448	83	7,149
Keweenaw	1	30	43	0	19	55	74	1	45
Lake	1	102	347	0	270	180	450	1	168
Lapeer	29	794	1,733	0	1,505	1,051	2,556	34	1,240
Leelanau	4	123	283	0	178	232	410	4	179
Lenawee	23	1,070	3,205	0	2,443	1,855	4,298	26	1,581
Livingston	30	1,071	2,339	544	2,310	586	3,440	34	1,641
Luce	3	65	209	0	129	148	277	3	104
Mackinac	5	115	375	45	153	297	495	7	190
Macomb	105	8,586	16,525	610	16,094	8,512	25,216	113	12,979

TABLE XVII-21. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1978 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Manistee	5	268	782	0	629	426	1,055	6	397
Marquette	12	837	2,582	0	2,120	1,311	3,431	13	1,207
Mason	10	349	1,087	0	843	603	1,446	13	545
Mecosta	5	360	1,327	0	873	819	1,692	8	577
Menominee	8	249	1,054	0	752	559	1,311	9	375
Midland	18	862	2,176	0	2,199	857	3,056	19	1,326
Missaukee	7	97	284	0	215	173	388	8	156
Monroe	39	1,659	3,375	418	3,008	1,647	5,073	44	2,598
Montcalm	15	451	1,608	0	1,116	948	2,074	18	744
Montmorency	2	85	298	0	214	171	385	2	128
Muskegon	41	1,922	4,949	541	4,993	1,378	6,912	43	2,896
Newaygo	14	385	1,111	0	927	583	1,510	21	583
Oakland	163	12,997	28,230	3,304	28,650	9,436	41,390	178	19,520
Oceana	9	217	555	0	556	225	781	12	335
Ogemaw	10	199	657	173	464	229	866	10	293
Ontonagon	3	70	236	0	94	215	309	9	114
Osceola	4	175	693	0	463	409	872	4	300
Oscoda	5	90	304	0	213	186	399	6	128
Otsego	3	208	488	125	402	172	699	3	320
Ottawa	21	1,364	3,823	300	3,511	1,397	5,208	28	1,995
Presque Isle	9	116	416	0	271	270	541	11	161
Roscommon	11	177	657	63	360	422	845	18	282
Saginaw	47	3,239	7,641	545	6,839	3,543	10,927	53	4,903
St. Clair	35	1,472	4,012	174	3,163	2,182	5,519	45	2,289
St. Joseph	13	669	1,896	0	1,312	1,266	2,578	14	1,006

TABLE XVII-21. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSON KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1978 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Sanilac	13	364	900	0	634	643	1,277	18	618
Schoolcraft	4	116	333	0	191	262	453	6	179
Shiawassee	10	701	1,565	185	1,254	837	2,276	12	1,074
Tuscola	21	534	1,305	0	1,098	762	1,860	25	821
Van Buren	22	733	1,607	348	1,512	502	2,362	23	1,164
Washtenaw	58	3,034	7,028	1,135	6,511	2,474	10,120	64	4,413
Wayne	342	31,452	68,226	9,099	70,444	20,477	100,020	356	47,454
Wexford	5	350	868	0	453	770	1,223	7	565
TOTAL	1,833	112,259	275,101	27,072	253,808	108,313	389,193	2,076	169,202

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts 1978 (Lansing: 1979), pp. 46-47.

TABLE XVII-22. NUMBER OF AIRCRAFT LANDING FACILITIES, ACTIVE PILOTS, AND ACTIVE CIVIL AIRCRAFT IN MICHIGAN: 1 JANUARY 1959-1978

Year	Aircraft landing facilities[a]	Active pilots[b]	Active civil aircraft		
			Air carrier	General aviation	
				Multiengine	All other
1959	187	13,528	4	229	2,600
1960	197	13,272	13	249	2,466
1961	215	12,576	12	295	2,662
1962	216	12,664	25	347	2,785
1963	226	13,030	23	374	2,896
1964	226	13,535	27	421	2,983
1965	235	15,235	34	438	3,047
1966	241	16,830	39	445	3,260
1967	242	19,338	45	550	3,614
1968	251	21,459	53	611	3,983
1969	278	24,214	44	688	4,245
1970	302	25,706	38	721	4,597
1971	305	25,836	--	--	5,526[c]
1972	376	26,152	--	--	5,511[c]
1973	383	26,585	--	--	n.a.
1974	401	24,409	--	--	6,101[c]
1975	403	24,562	--	--	6,216[c]
1976	400	23,822	--	--	6,254[c]
1977	421	n.a.	--	--	n.a.
1978	413	25,317	--	--	7,494[c]

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1959 through 1977 (Washington, D.C.: annually), Tables 3.5, 7.12, and 8.4 (1977).

a. Civil and military airports and airfields including seaplane bases and heliports. Only those military airports are included which have joint civil use.

b. Represents active pilot certificates held.

c. Total active civil aircraft.

n.a.: not available.

TABLE XVII-23. NUMBER OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES, BY LENGTH OF LONGEST RUNWAY: 1 JANUARY 1966 AND 1978

Item	Length of longest runway, in feet: Under 3,000	3,000 to 3,999	4,000 to 5,999	6,000 to 9,999	10,000 and over	Total
1 January 1966						
Michigan	128	70	29	6	8	241
United States	5,920	1,686	1,281	405	250	9,542
1 January 1978						
Michigan	277	80	36	16	4	413
United States	8,940	2,503	1,773	641	260	14,117

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966 and 1977 (Washington, D.C.: annually), Table 3.4 (1977).

TABLE XVII-24. SELECTED CHARACTERISTICS OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES: 1 JANUARY 1966 AND 1978

Item	1 January 1966: Michigan	1 January 1966: United States	1 January 1978: Michigan	1 January 1978: United States
Type of facility				
Airport	234	8,780	390	11,713
Heliport	0	400	15[a]	1,891[a]
Seaplane base	7	362	8	513
Ownership				
Public	115	3,554	133	4,708
Private	126	5,988	280	9,409
Surface and lighting				
Paved				
Lighted	74	1,965	113	3,564
Not lighted	7	764	19	1,749
Unpaved				
Lighted	27	901	43	919
Not lighted	133	5,912	238	7,885

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966 and 1977 (Washington, D.C.: annually), Tables 3.2 and 3.3 (1977).

a. Includes short-take-off-and-landing ports.

TABLE XVII-25. NUMBER OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL, BY CERTIFIED ROUTE AIR CARRIERS FROM AIRPORTS IN MICHIGAN: FOR 12 MONTHS ENDED 30 JUNE 1978

Airport	Aircraft departures[a]	Enplaned passengers[b]	Enplaned revenue tons[c]		
			Freight	Express	Mail
Alpena	947	11,727	62.94	.17	2.94
Benton Harbor-St. Joseph	1,978	37,131	290.75	.04	0
Detroit City	1,503	35,961	0	0	0
Detroit Metro.	79,635	4,572,631	114,743.45	1,049.88	23,546.31
Escanaba	2,061	19,753	40.41	0	11.91
Flint	4,887	138,529	166.47	13.68	205.50
Grand Rapids	12,610	396,982	1,855.99	65.09	1,019.22
Hancock-Houghton	1,057	25,002	166.49	0	13.75
Iron Mountain-Kingsfiel	2,094	21,013	169.74	.01	16.96
Ironwood-Ashland	1,265	9,600	8.03	0	2.07
Jackson	1,629	10,469	34.03	.07	16.52
Kalamazoo-Battle Creek	4,477	116,819	350.39	.56	198.50
Lansing	8,432	213,462	420.41	19.70	299.42
Manistee-Ludington	349	2,987	21.01	.27	5.54
Marinette (Wis.)-Menominee	1,716	10,249	62.36	.12	14.41
Marquette	1,071	41,678	75.31	.01	18.69
Muskegon	4,116	85,105	630.23	56.27	2.62
Pellston	1,924	34,565	137.93	.60	3.03
Saginaw-Bay City-Midland	5,665	215,996	485.70	33.31	237.44
Sault Ste. Marie	681	11,653	26.57	0	19.57
Traverse City	2,868	79,832	500.71	1.31	18.32
TOTAL	140,965	6,091,144	120,248.92	1,241.09	25,562.99

SOURCE: Federal Aviation Administration, Airport Activity Statistics of Certified Route Air Carriers, 12 months ended 30 June 1978 (Washington, D.C.: 1979), Tables 6 and 7.

a. Aircraft takeoffs made at airports.

b. The number of revenue passengers boarding aircraft, including originating, stopover, and transfer passengers.

c. The number of revenue tons of freight, express, and domestic mail loaded on aircraft, including originating and transfer tons.

TABLE XVII-26. AIRCRAFT OPERATIONS AT FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS IN MICHIGAN, BY TYPE OF OPERATION AND AIRCRAFT CATEGORY: FISCAL YEAR ENDED 30 SEPTEMBER 1978

Tower and type of operation	Air carrier	Air taxi	General aviation	Military	Total
Ann Arbor Municipal					
Itinerant operations	23	393	43,815	174	44,405
Local operations	0	0	64,801	108	64,909
Total operations	23	393	108,616	282	109,314
Battle Creek					
Itinerant operations	20	9,244	26,175	4,480	39,919
Local operations	0	0	28,755	1,932	30,687
Total operations	20	9,244	54,930	6,412	70,606
Benton Harbor Ross Field					
Itinerant operations	3,515	316	21,389	107	25,327
Local operations	0	0	22,109	30	22,139
Total operations	3,515	316	34,498	137	47,466
Detroit City					
Itinerant operations	3,152	16,907	106,014	462	126,535
Local operations	0	0	63,149	47	63,196
Total operations	3,152	16,907	169,163	509	189,731
Detroit Metro Wayne Co.					
Itinerant operations	162,776	20,243	82,012	341	265,372
Local operations	0	0	0	0	0
Total operations	162,776	20,243	82,012	341	265,372
Detroit Willow Run					
Itinerant operations	9,104	33,317	59,922	523	102,866
Local operations	0	0	107,723	188	107,911
Total operations	9,104	33,317	167,645	711	210,777
Flint Bishop					
Itinerant operations	10,277	1,732	62,997	615	75,621
Local operations	0	0	101,456	1,104	102,560
Total operations	10,277	1,732	164,453	1,719	178,181
Grand Rapids					
Itinerant operations	25,513	5,239	71,108	536	102,396
Local operations	0	0	54,732	110	54,842
Total operations	25,513	5,239	125,840	646	157,238
Jackson Reynolds Municipal					
Itinerant operations	3,177	112	49,863	478	53,630
Local operations	0	0	33,378	250	33,628
Total operations	3,177	112	83,241	728	87,258
Kalamazoo					
Itinerant operations	9,844	488	59,920	276	70,528
Local operations	0	0	38,721	263	38,984
Total operations	9,844	488	98,641	539	109,512

TABLE XVII-26. AIRCRAFT OPERATIONS AT FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS IN MICHIGAN, BY TYPE OF OPERATION AND AIRCRAFT CATEGORY: FISCAL YEAR ENDED 30 SEPTEMBER 1978 (cont.)

Tower and type of operation	Air carrier	Air taxi	General aviation	Military	Total
Lansing					
Itinerant operations	17,043	2,915	70,058	1,212	91,228
Local operations	0	0	64,800	6,079	70,879
Total operations	17,043	2,915	134,858	7,291	162,107
Muskegon					
Itinerant operations	8,248	59	35,689	881	44,877
Local operations	0	0	44,134	704	44,838
Total operations	8,248	59	79,823	1,585	89,715
Pontiac					
Itinerant operations	70	3,624	137,110	197	141,001
Local operations	0	0	141,807	8	141,815
Total operations	70	3,624	278,917	205	282,816
Saginaw Tri City					
Itinerant operations	11,767	2,583	41,132	542	56,024
Local operations	0	0	32,044	208	32,252
Total operations	11,767	2,583	73,176	750	88,276
Traverse City					
Itinerant operations	3,962	2,184	39,295	2,528	47,969
Local operations	0	0	44,768	5,016	49,784
Total operations	3,962	2,184	84,063	7,544	97,753
TOTAL					
Itinerant operations	268,491	99,356	906,499	13,352	1,287,698
Local operations	0	0	842,377	16,047	858,424
Total operations	268,491	99,356	1,748,876	29,399	2,146,122

SOURCE: Federal Aviation Administration, FAA Air Traffic Activity, Fiscal Year 1978 (Washington, D.C.: 1979), Table 4.

NOTE: FAA abbreviates Federal Aviation Agency. An aircraft operation is an arrival or departure. Local operations are performed by aircraft which (1) operate in the local traffic pattern or within sight of the tower, (2) are known to be departing for, or arriving from, flight in local practice areas located within a 20-mile radius of the control tower, or (3) execute simulated instrument approaches or low passes at the airport. All other aircraft arrivals and departures are itinerant operations.

TABLE XVII-27. PASSENGER TRAFFIC AT DETROIT METRO AIRPORT BY HOUR: 6 AUGUST 1976

Local time	Deplanements					Enplanements				
	First class	Coach	Non-revenue	Estimated	Total	First class	Coach	Non-revenue	Estimated	Total
0	12	131	4	0	147	0	0	0	0	0
1	10	140	1	0	151	0	0	0	0	0
2	13	178	4	0	195	0	0	0	0	0
3	3	45	0	0	48	6	59	2	0	67
4	1	13	0	0	14	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	8	8	10	76	4	8	98
7	144	135	4	16	299	95	405	24	8	532
8	130	291	22	16	459	225	781	34	8	1,048
9	95	613	18	10	736	141	892	55	34	1,122
10	135	272	11	34	452	190	634	16	10	850
11	233	290	9	8	540	62	428	17	24	531
12	76	346	12	10	444	262	525	21	8	816
13	125	515	20	24	684	147	378	13	18	556
14	220	225	13	18	476	163	535	24	16	738
15	148	463	14	8	633	189	214	7	10	420
16	319	1,116	43	251	1,729	167	765	19	8	959
17	288	464	9	0	761	356	1,003	23	26	1,408
18	173	537	10	32	752	217	548	29	0	794
19	284	1,247	39	10	1,580	192	545	9	249	995
20	235	921	39	0	1,195	155	364	16	18	553
21	71	388	9	16	484	121	196	8	16	341
22	72	501	12	0	585	79	506	11	0	596
23	56	166	3	0	225	0	0	0	0	0
TOTAL DAY	2,843	8,997	296	461	12,597	2,777	8,854	332	461	12,424

SOURCE: Federal Aviation Administration, Profiles of Scheduled Air Carrier Passenger Traffic for Top 100 U.S. Airports, August 6, 1976 (Washington, D.C.: 1977), p. 50.

TABLE XVII-28. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1967-1977

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Total
	Lakewise	Coastwise	Internal	Local and intraport	Canada	Overseas	
St. Mary's River							
1967	4,200,482	0	0	0	431,987	124,672	4,757,141
1968	4,230,317	0	0	0	448,175	118,606	4,797,098
1969	4,834,340	0	0	3	433,949	95,339	5,363,631
1970	4,448,581	0	0	4	391,712	107,370	4,947,667
1971	3,958,115	0	0	2	368,474	187,685	4,514,276
1972	4,123,881	0	0	4	373,351	270,072	4,767,298
1973	4,866,476	0	0	2	628,985	301,654	5,797,117
1974	4,581,604	0	0	3	426,591	136,032	5,144,230
1975	4,037,468	0	0	2	408,454	185,397	4,631,321
1976	4,138,670	0	0	3	329,790	163,517	4,631,980
1977	2,817,806	0	0	1	312,514	250,804	3,381,125
Lake Huron							
1967	18,253,796	3,714	1,030	2,844	3,607,829	1,376,435	23,245,648
1968	18,692,708	805	599	3,547	4,170,811	1,700,521	24,568,991
1969	19,650,351	4,541	0	4,059	3,680,506	1,664,949	25,004,406
1970	19,144,416	1,758	2,421	3,177	4,121,310	1,632,218	24,905,300
1971	17,096,864	28	4,573	4,797	3,307,825	2,188,299	22,602,386
1972	17,750,308	98	1,358	5,415	3,321,375	2,351,854	23,430,408
1973	20,161,720	5,206	1,004	5,120	4,155,623	2,429,105	26,757,778
1974	18,811,861	0	1,157	6,121	3,152,382	1,264,686	23,236,207
1975	16,125,686	0	1,333	4,100	3,315,051	1,372,476	20,818,646
1976	17,004,630	0	3,963	4,935	3,962,777	1,548,453	22,424,758
1977	13,135,720	0	8	4,970	3,482,484	2,131,823	18,755,125
St. Clair[a]							
1967	4,565,797	1,307	238	0	804,828	344,601	5,716,771
1968	4,648,788	272	411	179	968,280	407,519	6,025,449
1969	4,867,509	1,475	0	162	875,971	400,140	6,145,857
1970	4,769,103	618	541	3	1,037,396	390,792	6,198,453

TABLE XVII-28. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1967-1977 (cont.)

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Total
	Lakewise	Coastwise	Internal	Local and intraport	Canada	Overseas	
St. Clair[a] (cont.)							
1971	4,231,719	6	1,019	181	821,110	527,556	5,581,591
1972	4,400,660	23	165	0	810,157	582,946	5,783,951
1973	4,908,975	1,790	353	0	1,017,375	594,722	6,523,215
1974	4,485,771	0	407	288	723,164	308,421	5,518,051
1975	3,817,879	0	308	0	771,777	336,978	4,926,942
1976	3,953,856	0	665	0	863,660	376,761	5,194,942
1977	2,986,684	0	0	0	822,731	519,520	4,328,935
Detroit River							
1967	2,468,608	2,387	1,925	232	487,730	230,928	3,191,810
1968	2,515,505	1,887	2,088	181	519,844	279,639	3,319,144
1969	2,600,147	2,465	1,346	294	474,135	265,840	3,344,227
1970	2,522,569	1,841	1,451	890	619,962	268,013	3,414,726
1971	2,217,948	1,059	1,388	1,232	506,905	350,251	3,078,783
1972	2,314,157	1,339	1,222	2,315	518,873	368,230	3,206,136
1973	2,553,050	2,455	408	943	635,793	378,045	3,570,694
1974	2,284,291	1,194	273	1,735	454,449	210,510	2,952,452
1975	1,950,195	1,112	268	988	498,614	221,029	2,672,206
1976	2,024,737	1,600	402	794	519,801	253,521	2,800,855
1977	1,529,176	1,159	34	779	520,875	338,756	2,390,779
Lake Michigan[b]							
1967	14,924,656	2,506	451,934	75,914	3,142,407	1,265,424	19,862,841
1968	14,194,189	2,714	457,119	72,012	3,361,606	1,674,292	19,761,932
1969	15,565,167	2,812	453,322	77,659	2,595,304	1,673,105	20,367,369
1970	15,430,216	1,521	478,793	74,086	2,449,974	1,610,188	20,044,778
1971	13,860,292	1,718	478,677	84,798	2,534,725	1,981,460	18,941,670
1972	14,470,995	1,786	511,197	87,770	2,658,503	1,819,767	19,550,013
1973	15,887,795	2,723	515,078	95,598	2,797,246	1,751,422	21,049,862
1974	16,105,023	2,419	580,506	90,386	2,248,124	1,004,624	20,031,082
1975	14,366,790	913	555,173	72,047	2,193,957	909,835	18,098,715
1976	14,490,026	1,200	460,620	65,835	3,075,673	1,265,525	19,358,885
1977	11,270,889	1,057	421,172	57,984	2,775,846	1,628,324	16,155,272

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1967 through 1977 (Vicksburg, Mississippi: annually), p. x, Table 1 (1977).

a. Includes St. Clair River and channels in Lake St. Clair. b. Includes the port of Chicago.

TABLE XVII-29. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1971-1977

(In thousands of tons)

Port or waterway	1971	1972	1973	1974	1975	1976	1977
Alabaster	513.0	591.2	659.0	409.2	n.a.	561.0	621.7
Alpena Harbor	3,637.7	3,380.4	2,853.9	3,082.3	2,855.6	2,835.5	3,004.9
Calcite	12,321.4	12,805.8	14,985.1	14,767.4	11,645.9	11,313.5	11,985.2
Charlevoix	195.0	185.5	167.6	157.4	133.1	124.2	42.5
Cheboygan	135.2	114.9	136.0	117.2	78.9	158.0	158.9
Detroit River	115,742.0	118,991.1	131,676.4	110,515.9	100,419.3	104,551.8	90,576.9
Port of Detroit	30,051.9	29,913.1	31,541.6	27,541.2	26,487.9	26,407.9	25,092.8
Detroit Harbor	12,755.9	11,939.0	13,266.5	11,230.0	11,103.2	10,371.6	7,856.8
Rouge River	12,744.0	11,985.1	13,057.7	12,738.1	10,900.7	11,061.9	12,055.8
Ecorse	822.6	737.7	711.8	647.5	715.4	635.6	902.0
Wyandotte	1,850.7	1,593.6	1,865.4	1,632.7	1,497.9	1,584.3	1,442.2
Trenton	3,012.8	3,060.7	3,230.2	3,496.5	3,120.6	3,059.8	3,131.0
Escanaba	9,381.8	10,954.2	10,250.2	9,685.7	10,876.3	11,934.4	9,506.1
Frankfort Harbor	1,563.4	1,353.1	1,176.5	801.6	644.7	433.1	365.6
Gladstone	320.8	292.0	356.9	230.9	194.1	261.9	232.7
Grand Haven Harbor and Grand River	3,134.1	2,977.1	2,504.5	2,215.9	1,138.1	830.9	499.5
Grays Reef Passage	7,588.9	6,808.4	7,887.6	5,741.1	5,467.9	5,899.4	5,378.7
Holland	276.9	261.7	448.3	368.9	338.1	338.7	377.1
Harbor Beach	124.4	233.9	201.3	237.4	283.0	296.5	268.3
Keweenaw Waterway	330.6	273.6	229.4	290.3	258.2	236.4	264.2
Ludington Harbor	4,258.4	3,368.0	2,541.7	2,178.8	2,123.5	2,338.8	2,448.9
Manistee Harbor	503.7	522.7	569.3	506.8	220.0	182.5	181.4
Marquette Harbor	835.4	849.2	773.5	1,036.1	1,233.3	572.3	394.3
Menominee Harbor and River[a]	279.4	152.5	185.8	152.4	118.1	105.1	124.2
Monroe Harbor	31.1	30.2	37.4	215.6	1,184.7	972.9	1,321.3
Muskegon Harbor	3,541.9	2,835.8	2,922.7	2,508.1	1,945.3	2,270.8	1,912.4
Petoskey Penn Dixie Harbor	524.0	473.1	534.7	501.5	469.0	430.8	485.5

TABLE XVII-29. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1971-1977 (cont.)

(In thousands of tons)

Port or waterway	1971	1972	1973	1974	1975	1976	1977
Port Dolomite	2,708.6	3,263.7	3,711.1	4,437.0	3,608.5	3,457.4	3,798.6
Port Gypsum	339.2	341.9	404.8	273.0	382.1	473.9	500.1
Port Inland	4,519.3	4,199.0	4,367.6	4,324.1	3,248.5	3,361.5	3,469.7
Presque Isle Harbor	3,549.3	3,450.1	3,740.7	3,118.4	3,847.0	6,840.6	5,215.3
Saginaw River	4,847.1	4,386.3	4,096.0	4,180.1	2,705.3	3,072.5	3,656.2
St. Clair River	102,892.1	106,464.6	118,909.8	101,445.4	91,711.3	96,360.2	82,750.5
Port Huron	886.7	857.2	364.3	308.1	213.6	244.6	325.9
Marysville	678.5	633.7	606.6	577.7	559.7	516.7	575.9
St. Clair	3,995.0	3,950.5	3,338.1	3,075.1	2,686.5	3,355.1	4,585.1
Marine City	113.8	159.5	252.7	232.5	145.7	187.5	250.9
Algonac	4.1	15.0	0	11.3	18.3	0	7.2
Channels in Lake St. Clair	101,864.1	105,330.0	117,817.6	99,318.3	88,954.4	92,441.3	77,647.2
St. Joseph Harbor	626.9	475.1	465.4	433.1	245.0	295.1	308.4
St. Mary's River	75,949.6	80,207.2	97,597.3	86,801.4	78,153.5	78,930.7	58,322.0
St. Mary's Falls Canal	73,176.6	77,610.3	94,071.8	83,302.7	75,225.5	76,739.5	56,302.0
Sault Ste. Marie	116.6	97.3	109.7	87.5	86.2	95.6	69.9
Lime Island	86.8	85.5	63.0	37.8	56.4	84.4	59.8
Drummond Island	2,045.1	1,784.1	2,732.8	2,909.6	2,341.1	2,511.4	2,131.6
Detour and vicinity	213.4	209.4	221.8	204.5	78.9	14.4	.1
Stoneport	7,049.1	7,707.5	8,673.1	9,859.2	8,533.2	9,766.0	7,991.6
Traverse City Harbor	308.5	446.2	422.4	405.2	364.8	398.3	430.7

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1971 through 1977 (Vicksburg, Mississippi: annually), pp. 4-64 (1977).

NOTE: Only waterways which had more than 100,000 tons of traffic in 1974 are listed.

a. Michigan and Wisconsin.

n.a.: not available.

TABLE XVII-30. MICHIGAN URBAN BUS OPERATIONS, USAGE AND FINANCIAL DATA: 1 OCTOBER 1976 - 30 SEPTEMBER 1977

Location or route	Number of passengers	Total operating costs	Total revenues	Required governmental operating assistance	Total operating costs per psssenger	Required governmental assistance per passenger
Ann Arbor	2,490,406	$4,587,647	$ 501,765	$ 4,085,882	$ 1.84	$ 1.64
change[a]	+45	+36	+25	+37	- 6	- 5
Battle Creek	1,008,764	739,831	157,089	582,741	.73	.58
change[a]	+10	+23	+13	+26	+12	+14
Bay County	418,652	713,750	108,023	605,727	1.70	1.45
change[a]	+16	+73	+20	+88	+49	+63
Flint	3,023,325	2,382,536	567,178	1,815,358	.79	.60
change[a]	+ 3	+54	+ 4	+81	+49	+76
Grand Rapids	2,782,491	2,171,780	639,044	1,532,736	.78	.55
change[a]	+28	+55	+20	+76	+22	+38
Jackson	526,954	383,329	121,122	262,207	.73	.50
change[a]	+ 8	+14	+ 0	+21	+ 6	+14
Kalamazoo	2,029,291	1,545,414	395,130	1,150,284	.76	.57
change[a]	+15	+29	+17	+33	+12	+16
Lansing	3,195,950	3,126,244	559,733	2,566,511	.98	.80
change[a]	+39	+63	+34	+72	+18	+23
Muskegon	329,618	496,621	68,731	427,890	1.51	1.30
change[a]	+28	+26	+41	+24	- 1	- 3
Saginaw	264,433	266,070	63,564	202,506	1.01	.76
change[a]	+35	+24	+27	+23	- 7	-10
SEMTA	89,652,214	78,211,045	31,346,665	46,864,380	.87	.52
change[a]	+ 2	+22	- 3	+46	+19	+44

SOURCE: Michigan Department of State Highways and Transportation, 1976-77 General Transportation Fund Report (Lansing: 1978), pp. 212-213.

a. Percentage change from the previous year.

TABLE XVII-31. MICHIGAN INTERCITY BUS OPERATIONS, USAGE AND FINANCIAL DATA: 1 OCTOBER 1976 - 30 SEPTEMBER 1977

Location or route	Number of passengers	Total operating costs	Total revenues	Required governmental operating assistance	Total operating costs per passenger	Required governmental assistance per passenger
Greyhound Line, Inc.						
Grand Rapids-Kalamazoo "Bustrak"	8,373	$ 65,403	$ 23,677	$ 26,634	$ 7.81	$ 3.18
Sault Ste. Marie-Calumet "Copper Country"	5,104	214,014	39,704	124,924	41.44	24.19
Muskegon-Grand Rapids-Holland-Chicago "Midwesterner"	18,619	209,205	146,934	20,333	11.24	1.09
St. Ignace-Duluth/St. Ignace-Iron Mountain "Pathfinder"	4,502	159,843	34,084	88,273	35.50	19.61
Lansing-Detroit "Statesman"	9,014	81,091	43,843	18,533	9.00	2.06
Houghton/Hancock-Green Bay "Timberliner"	10,833	199,546	63,583	89,913	18.42	8.30
Cheboygan-Alpena-Bay City "Shoreliner"	1,752	67,181	11,007	40,770	38.35	23.27
Indian Trails, Inc.						
Saginaw-Flint-Lansing Chicago "Capital City Chieftain"	53,058	484,453	400,292	30,919	9.13	.58
Valley Coach Lines, Inc.						
Pt. Huron-Lapeer-Davison-Flint "Valley Flyer"	4,020	53,038	8,869	31,930	13.19	7.94

TABLE XVII-31. MICHIGAN INTERCITY BUS OPERATIONS, USAGE AND FINANCIAL DATA: 1 OCTOBER 1976 - 30 SEPTEMBER 1977 (cont.)

Location or route	Number of passengers	Total operating costs	Total revenues	Required governmental operating assistance	Total operating costs per passenger	Required governmental assistance per passenger
White Pine Express, Inc. Calumet-Ironwood "North Country"	1,187	$ 68,818	$ 4,906	$ 48,032	$ 57.98	$ 40.47
White Pine Transit Co. Ironwood-White Pine Mine	30,430	137,696	60,312	49,271	4.53	1.62
Wolverine Stages, Inc. Cheboygan-Charlevoix "Voyageur"	2,395	72,610	2,301	53,553	30.32	22.36

SOURCE: Michigan Department of State Highways and Transportation, 1976-77 General Transportation Fund Report (Lansing: 1978), pp. 239-241.

TABLE XVII-32. MICHIGAN RAIL PASSENGER OPERATIONS, USAGE AND FINANCIAL DATA: 1 OCTOBER 1976 - 30 SEPTEMBER 1978

Location or route	Number of passengers	Total operating costs	Total revenues	Required governmental operating assistance	Total operating costs per passenger	Required governmental assistance per passenger
			1 October 1976-30 September 1977			
Blue Water,						
Chicago-Port Huron	91,380	$ 2,584,003	$1,068,187	$1,515,816	$ 28.28	$ 16.59
Change[a]	+4.53	-9.59	+17.63	-22.26	-13.49	-25.61
Michigan Executive,						
Detroit-Jackson	78,187	600,990	126,618	474,381	7.69	6.07
Change[a]	+19.48	+20.73	+62.64	+12.96	+1.18	-5.45
Niagara Rainbow,						
Detroit-Buffalo	37,089	2,132,427	1,113,580	1,018,847	57.49	27.47
Change[a]	-12.25	-8.41	+5.89	-20.18	+4.38	-9.04
			1 October 1977-30 September 1978			
Blue Water,						
Chicago-Port Huron	91,940	4,197,501	1,157,725	3,039,776	45.65	33.06
Change[a]	+ .6	+62.4	+8.4	+100.5	+61.4	+99.3
Michigan Executive,						
Detroit-Jackson	87,024	543,102	171,750	371,352	6.24	4.27
Change[a]	+11.3	→ 16	+35.6	-21.7	-18.9	-29.7
Niagara Rainbow,						
Detroit-Buffalo	35,844	2,596,416	1,036,998	1,559,418	72.44	43.51
Change[a]	-3.4	+21.8	-6.9	+53.1	+26.0	+58.4

SOURCE: Michigan Department of State Highways and Transportation, 1976-77 General Transportation Fund Report (Lansing: 1978), p. 23, and 1977-78 General Transportation Fund Report (Lansing: 1979), p. 43.

a. Percentage change from previous year.

TABLE XVII-33. MICHIGAN RAIL FREIGHT OPERATIONS, USAGE AND FINANCIAL DATA: 1 APRIL 1976 - 31 MARCH 1977

Location or route	Number of carloads	Total operating costs	Total revenues	Required governmental operating assistance	Total operating costs per carload	Required governmental assistance per carload
Michigan Northern/GR&/ Branch (incl. Traverse City Branch)	2,065	$1,025,698	$ 256,354	$ 796,344	$ 496.71	$ 372.56
Detroit & Mackinac Linwood to Sallings	330	703,610	85,650	617,960	2,132.15	1,872.61
Hillsdale County Railroad	4,613	947,629	482,464	465,165	205.43	100.84
Conrail/Vulcan Old Road	1,174	643,163	607,332	35,831	547.84	30.52
Conrail/Morenci Branch	402	242,055	208,162	33,893	602.13	84.31
Conrail/Vermontville to Grand Rapids	287	240,236	172,516	67,720	837.06	235.96
Conrail/Vicksburg to Mendon	106	67,715	56,023	11,692	638.82	110.30
Conrail/Sturgis to Nottawa	20	22,570	14,296	8,280	1,128.80	414.00
Conrail/Richland Tee	27	27,814	11,606	16,208	1,030.15	600.30
Conrail/Kalamazoo to Dowagiac	237	205,615	165,589	40,026	867.57	168.89
Conrail/Buchanan State Line	99	66,710	49,962	16,748	673.84	169.17
Conrail/Vassar Munger-Millington Colling	1,774	1,245,906	1,093,276	152,630	702.31	86.04
Conrail/Ann Arbor Rail-Road including Ferry	21,059	18,017,766	11,451,616	6,566,150	855.59	311.80

SOURCE: Michigan Department of State Highways and Transportation 1976-77 General Transportation Fund Report (Lansing: 1978), pp. 234-235.

TABLE XVII-34. NUMBER OF REVENUE VEHICLES REPORTED BY THE DETROIT & CANADA TUNNEL CORPORATION, DETROIT INTERNATIONAL BRIDGE COMPANY, MACKINAC BRIDGE AUTHORITY, AND INTERNATIONAL BRIDGE AUTHORITY: 1969 - 1978

Year	Detroit & Canada Tunnel Corporation	Detroit International Bridge Company	Mackinac Bridge Authority	International Bridge Authority
1969	5,921,565	4,204,805	1,836,383	743,076
1970	5,926,789	4,216,764	1,947,862	759,999
1971	5,763,013	4,408,012	2,090,492	780,222
1972	5,681,152	4,616,461	2,174,664	824,878
1973	5,523,499	4,964,444	2,254,439	868,479
1974	5,405,642	4,973,016	2,138,298	865,814
1975	5,202,331	4,980,587	2,285,784	936,890
1976	5,056,690	5,022,711	2,391,211	957,622
1977	4,968,398	5,238,646	2,460,293	1,059,595
1978	5,392,341	4,956,585	2,539,620	1,118,930

SOURCE: Detroit & Canada Tunnel Corporation, special release; Detroit International Bridge Company, special release; Mackinac Bridge Authority, special release; and International Bridge Authority.

NOTE: The International Bridge Authority links Michigan and Canada at Sault Ste. Marie. Traffic data for the Blue Water Bridge, located at Port Huron and Sarnia, are not available.

XVIII. COMMUNICATIONS

The Federal Communications Commission is the leading source of information in the communications field. Its publication Statistics of Communications Common Carriers gives much detailed information about telephones, radio, and television in the nation and in various states.

The Broadcasting Yearbook of Broadcasting Publications, Inc. lists a considerable amount of information relating to radio and television stations. This volume includes information by states: the facility involved, advertising rates charged, trading area covered, and so forth. Further information concerning Michigan newspapers is available in the Michigan Newspaper Directory and Rate Book of the Michigan Press Association.

Data on plant and customers of each telephone company are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating telephone companies and other public utilities.

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TABLE XVIII-1. NUMBER AND CIRCULATION OF DAILY AND SUNDAY NEWSPAPERS IN MICHIGAN: 1962-1974 AND 1976 AND 1977

(Circulation figures in thousands)

	Daily newspapers						Sunday newspapers	
	Number			Net paid circulation[a]				Net paid
Year	Morning	Evening	Total	Morning	Evening	Total	Number	circulation[a]
1962	1	52	53	509	1,761	2,271	11	1,992
1963	1	52	53	512	1,773	2,285	11	2,015
1964	1	52	53	521	1,862	2,384	11	2,081
1965	1	52	53	509	1,844	2,353	11	2,040
1966	1	53	54	537	1,873	2,410	11	2,093
1967	1	53	54	591	1,902	2,492	11	2,167
1968	1	53	54	530	1,905	2,435	12	2,085
1969	1	54	55	562	1,853	2,415	12	2,080
1970	2	54	56	610	1,902	2,512	13	2,189
1971	1	54	55	574	1,872	2,447	13	2,187
1972	1	54	55	599	1,911	2,510	14	2,245
1973	1	54	55	613	1,957	2,569	14	2,276
1974	1	54	55	628	1,899	2,527	14	2,269
1976	1	52	53	621	1,832	2,453	14	2,225
1977	2	50	52	629	1,828	2,457	14	2,237

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1962 through 1978 (Washington, D.C.: annually), Table 991 (1978).
a. As of 1 October. Figures for 1975 not available.

TABLE XVIII-2. NUMBER OF COMMERCIAL BROADCAST STATIONS IN MICHIGAN: 1 JANUARY 1962-1974 AND 1976 AND 1977

Year	AM	FM	TV	Total
1962	104	38	14	156
1963	110	41	16	167
1964	114	47	16	177
1965	115	51	16	182
1966	116	58	17	191
1967	121	61	17	199
1968	122	67	18	207
1969	124	72	19	215
1970	124	76	20	220
1971	125	78	20	223
1972	125	84	22	231
1973	126	87	21	234
1974	124	92	21	237
1976	128	107	24	259
1977	127	116	24	267

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1962 through 1978 (Washington, D.C.: annually), Table 978 (1978).

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1978

County	City	Name[a]	Circulation[b] Daily	Sunday
Alpena	Alpena	Alpena News	12,800	--
Bay	Bay City	Bay City Times	42,000	--
Berrien	Benton Harbor	The Herald-Palladium	35,791	--
	Niles	The Daily Star	61,000	--
Branch	Coldwater	Daily Reporter	8,821	--
Calhoun	Albion	Albion Evening Recorder	4,068	--
	Battle Creek	Battle Creek Enquirer & News	34,120	40,546
	Marshall	Marshall Evening Chronicle	3,119	--
Cass	Dowagiac	Dowagiac Daily News	61,000	--
Cheboygan	Cheboygan	Cheboygan Daily Tribune	4,339	--
Chippewa	Sault Ste. Marie	The Evening News	8,539	--
Delta	Escanaba	Escanaba Daily Press	10,518	70,500
Dickinson	Iron Mountain	Iron Mountain News	10,247	74,550
Emmet	Petoskey	Petoskey News-Review	27,990	--
Genesee	Flint	Flint Journal	105,903	108,500
Gogebic	Ironwood	The Ironwood Daily Globe	10,642	--
Grand Traverse	Traverse City	Traverse City Record-Eagle	22,500	--
Hillsdale	Hillsdale	Hillsdale Daily News	8,780	--
Houghton	Houghton	Daily Mining Gazette	11,928	--
Huron	Bad Axe	Huron Daily Tribune	9,321	--
Ingham	Lansing	The State Journal	78,579	78,405
Ionia	Ionia	Ionia Daily Sentinel-Standard	17,132	--
Isabella	Mt. Pleasant	The Morning Sun	47,700	--
Jackson	Jackson	Jackson Citizen Patriot	37,909	41,398
Kalamazoo	Kalamazoo	Kalamazoo Gazette	100,182	64,395
Kent	Grand Rapids	The Grand Rapids Press	125,669	138,885
Lenawee	Adrian	The Daily Telegram	24,799	--
Macomb	Mt. Clemens	The Macomb Daily	97,263	--
Manistee	Manistee	Manistee News-Advocate	29,112	--
Marquette	Marquette	The Mining Journal	22,729	--
Mason	Ludington	Ludington Daily News	8,527	--
Mecosta	Big Rapids	The Pioneer	32,577	--
Menominee	Menominee	The Herald-Leader	4,703	--

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b] Daily	Sunday
Midland	Midland	Midland Daily News	17,025	--
Monroe	Monroe	Monroe Evening News	25,802	--
Montcalm	Greenville	The Daily News	23,413	--
Muskegon	Muskegon	The Muskegon Chronicle	44,986	46,697
Oakland	Pontiac	The Oakland Press	74,564	--
	Royal Oak	The Daily Tribune	52,730	--
Ottawa	Grand Haven	Grand Haven Tribune	9,420	--
	Holland	Holland Sentinel	30,000	--
Saginaw	Saginaw	Saginaw News	54,513	57,549
St. Clair	Port Huron	The Times Herald	32,711	34,660
St. Joseph	Sturgis	Sturgis Journal	23,339	--
	Three Rivers	Three Rivers Commercial	4,824	--
Shiawassee	Owosso	The Argus-Press	14,824	--
Van Buren	South Haven	South Haven Daily Tribune	15,424	--
Washtenaw	Ann Arbor	Ann Arbor News	42,677	--
	Ypsilanti	The Press	28,500	--
Wayne	Detroit	Detroit Free Press	608,987	715,107
	Detroit	Detroit Legal News	2,229	--
	Detroit	Detroit News	633,708	826,111
Wexford	Cadillac	Cadillac Evening News	23,262	--

SOURCE: Michigan Press Association, Michigan Newspaper Directory and Rate Book, 1979 (Lansing: 1979), pp. 44-51.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and publishers figures.

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978

County	City	Name[a]	Circulation[b]
Alcona	Harrisville	Alcona County Review	1,953
	Lincoln	Alcona Co. Herald	1,750
Alger	Munising	Munising News	3,140
Allegan	Allegan	Allegan County News-Gazette	6,820
	Fennville	Fennville Herald	1,398
	Plainwell	The Union-Enterprise	3,459
	Saugatuck	The Commercial Record	2,091
	Wayland	Wayland Globe	13,500
Antrim	Bellaire	Antrim Co. News	38,060
	Central Lake	The Torch	1,918
	Elk Rapids	Elk Rapids Progress	766
	Elk Rapids	Elk Rapids Town Meeting	899
Arenac	Standish	Arenac C. Independent	5,423
Baraga	L'Anse	L'Anse Sentinel	4,043
Barry	Freeport	Freeport News	688
	Hastings	Hastings Banner	3,992
	Middleville	Middleville Sun & Caledonia News	1,833
	Nashville	Maple Valley News	3,225
Bay	Bay City	Bay City Democrat & Bay County Legal News	1,231
	Bay City	Bay City Valley Tribune	2,451
	Pinconning	Pinconning Journal	1,512
Benzie	Frankfort	Benzie Co. Record Patriot	24,000
Berrien	Bridgman	The Community Enterprise	1,485
	Buchanan	Berrien County Record	9,455
	New Buffalo	New Buffalo Times	3,430
	Three Oaks	Galien River Gazette	8,006
	Watervliet	Watervliet Record	2,242
Branch	Bronson	Bronson Journal	2,026
	Union City	The Register-Tribune	936
Calhoun	Homer	Homer Index	875
Cass	Cassopolis	Cassopolis Vigilant	61,000
	Edwardsburg	Edwardsburg Argus	61,000
	Marcellus	Marcellus News	1,400
Charlevoix	Boyne City	Charlevoix Co. Press	38,060
	Charlevoix	Charlevoix Courier	21,165
Cheboygan	Cheboygan	Cheboygan Observer	725
	Indian River	Straitsland Resorter	2,296
Clare	Clare	Clare Sentinel	3,420
	Harrison	Clare County Cleaver	2,738
Clinton	Ovid	Maple River News	5,900
	St. Johns	Clinton County News	5,563
Crawford	Grayling	Crawford County Avalanche	3,823
Delta	Gladstone	The Delta Reporter	4,262
Eaton	Bellevue	Bellevue Gazette	1,941
	Charlotte	Charlotte Republican-Tribune	5,333
	Eaton Rapids	Eaton Rapids Journal	7,000
	Grand Ledge	Grand Ledge Independent	3,583
	Olivet	The Olivet Optic	739
	Sunfield	Sunfield Sentinel	1,128

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b]
Emmet	Harbor Springs	The Harbor Light	1,689
Genesee	Clio	Clio Messenger	3,050
	Davison	Davison Index	9,300
	Fenton	Fenton Independent	39,200
	Fenton	Tri-County News	23,600
	Flint	Flint-Genesee County Legal News	1,050
	Flint	The Suburban News	24,897
	Flushing	Flushing Observer	28,200
	Grand Blanc	Grand Blanc Evening News	7,212
	Linden	Linden Leader	914
	Mt. Morris	Genesee Co. Herald	1,840
	Swartz Creek	Swartz Creek News	28,200
Gladwin	Gladwin	Gladwin County Record & Beaverton Clarion	5,902
Gogebic	Wakefield	Wakefield News	1,359
Gratiot	Ithaca	Gratiot County Herald	5,853
Hillsdale	Camden	The Farmer's Advance	26,028
	Jonesville	Jonesville Independent	900
Huron	Harbor Beach	Harbor Beach Times	3,189
	Pigeon	The Progress Advance	2,331
	Port Austin	The Huron News	692
	Sebewaing	Sebewaing Blade-Crescent	3,161
Ingham	East Lansing	Towne Courier	32,300
	Leslie	Leslie Local Independent	6,495
	Mason	Ingham County News	15,005
	Stockbridge	The Town Crier	1,081
	Williamston	The Enterprise	32,300
Ionia	Clarksville	Clarksville Record	600
	Lake Odessa	Lake Odessa Wave	1,980
	Portland	Review & Observer	1,530
Iosco	Oscoda	Oscoda Press	11,960
	Tawas City-East Tawas	Iosco County News	11,960
	Tawas City	Tawas Herald	3,870
Iron	Crystal Falls	Diamond Drill	2,864
	Iron River	Iron River Reporter	15,600
Isabella	Shepherd	The Shepherd Argus	21,742
Jackson	Brooklyn	The Exponent	8,300
	Concord	Concord News	298
	Grass Lake	Grass Lake Public Sentiment	1,014
	Hanover	Hanover-Horton Local	456
	Jackson	The Blazer	6,000
	Parma	Parma News	584
	Springport	Springport Signal	1,500
Kalamazoo	Climax	Climax Crescent	726
	Galesburg	The Argus	1,304
	Portage	Herald-Headliner	13,000
	Richland	Richland Journal	1,304
	Vicksburg	Vicksburg Commercial-Express	2,144

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b]
Kalkaska	Kalkaska	Leader & Kalkaskian	38,060
Kent	Cedar Springs	Cedar Springs Clipper	10,419
	East Grand Rapids	Cadence	5,000
	Lowell	The Grand Valley Ledger	2,670
	Rockford	Rockford Register	10,419
	Sparta	North Kent Leader	15,500
	Wyoming	The Southkent News-Wyoming Advocate	2,671
Lake	Baldwin	Lake County Star	32,577
Lapeer	Almont	Almont Times Herald	8,872
	Almont-Imlay City	Advisor Newspapers	81,161
	Imlay City	Tri-City Times	8,872
	Lapeer	Lapeer County Press	20,919
Leelanau	Leland	Leelanau Enterprise	4,835
Lenawee	Blissfield	Blissfield Advance	2,302
	Clinton	Clinton Local	1,540
	Hudson	Hudson Post-Gazette	2,150
	Morenci	Morenci Observer	4,425
	Tecumseh	Tecumseh Herald	4,500
Livingston	Brighton	The Brighton Argus	23,157
	Fowlerville	The Fowlerville Review	7,500
	Howell	Livingston County Press	12,550
	Pickney	Pickney Post	8,794
Luce	Newberry	Newberry News	2,825
Mackinac	Cedarville	The Weekly Wave	5,345
	St. Ignace	St. Ignace News	5,345
Macomb	Armada	Armada Times	1,451
	Fraser-Clinton Twp.	Advisor Newspapers	81,161
	New Baltimore	Anchor Bay Beacon New Haven Herald	5,100
	Richmond	The Review	19,760
	Romeo	Advisor Newspaper	81,161
	Romeo	Romeo Observer	8,617
	St. Clair Shores	St. Clair Shores-Roseville-East Detroit Comm News	97,263
	Sterling Heights	Sterling Heights-Utica-Shelby Community News	97,263
	Utica	The Advisor Newspaper	81,161
	Warrer	Warren-Centerline Comm News	97,263
Manistee	Bear Lake	The Manistee County Pioneer-Press	1,913
Mecosta	Barryton	Chippewa Hills Courier	32,577
Menominee	Stephenson	Menominee County Journal	3,089
Missaukee	Lake City	Lake City Waterfront, Inc.	4,090
Monroe	Carleton	Messenger	947
	Dundee	Dundee Reporter	1,210
	Lambertville	Courier Herald	21,000
	Petersburg	Petersburg Sun	1,210

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b]
Montcalm	Carson City	Carson City Gazette	2,225
	Edmore	Edmore Times	2,332
	Howard City	Howard City Record	1,953
	Lakeview	Lakeview Enterprise	3,219
Montmorency	Atlanta	Montmorency County Tribune	4,150
Muskegon	Montague	White Lake Observer	15,697
	Norton Shores	Norton Examiner	7,900
Newaygo	Fremont	Fremont Times-Indicator	6,841
	Newaygo	Newaygo County Sun	32,577
Oakland	Birmingham	Birmingham Eccentric	19,728
	Clarkston	Clarkston News	8,227
	Farmington	Farmington Observer	15,049
	Ferndale	Legal Advertiser and Gazette Times	7,304
	Hazel Park	Hazel Park News	7,304
	Holly	N.W. Oakland County Herald-Advertiser	1,906
	Lake Orion	Lake Orion Review	3,157
	Madison Heights	Madison Heights Reporter	40,500
	Madison Heights	Madison News	7,304
	Milford	Milford Times	4,969
	Milford	Milford-Highland Spinal Column	67,395
	Novi	Novi-Commerce Spinal Column	67,395
	Novi	Novi-Walled Lake News	23,157
	Oxford	Oxford Leader	2,948
	Pontiac	Oakland County Legal News	1,453
	Pontiac	Waterford Times	50,000
	Rochester	Rochester Clarion	7,410
	Rochester	Rochester Eccentric	8,548
	Southfield	Southfield Eccentric	16,114
	South Lyon	The Herald	23,157
	Troy	The Eccentric	8,002
	Troy	Troy-Clawson Reporter	40,500
	Union Lake	Spinal Column	67,395
	Warren	Warren-Sterling Reporter	40,500
	West Bloomfield	West Bloomfield Spinal Column	67,395
	West Bloomfield	The Eccentric	4,016
Oceana	Hart	Hart Journal	4,036
	New Era	The Oceana County News	15,697
	Shelby	Oceana Herald	2,791
Ogemaw	West Branch	Ogemaw County Herald	27,820
Ontonagon	Ontonagon	Ontonagon Herald	3,157
Osceola	Evart	Evart Review	5,230
	Marion	Marion Press	1,283
	Reed City	Osceola County Herald	32,577
Oscoda	Mio	Oscoda County News	2,700
Otsego	Gaylord	The Herald-Time	15,793
	Grand Haven	Western Michigan News Review	15,500
Ottawa	Zeeland	Zeeland Record	1,992

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b]
Presque Isle	Onaway	Onaway Outlook	5,569
	Rogers City	Presque Isle County Advance	5,569
Roscommon	Houghton Lake	Houghton Lake Resorter	5,472
	Roscommon	Roscommon Herald-News	3,821
Saginaw	Birch Run	Birch Run-Banner	9,150
	Bridgeport	Future Views	9,150
	Chesaning	Saginaw Valley News	9,150
	Frankenmuth	Frankenmuth News	3,925
	Merrill	Monitor Herald	9,150
	Saginaw	Saginaw Press	2,047
	Saginaw	Township Times	18,620
St. Clair	Algonac	Courier-Journal	19,760
	Capac	Capac Journal	8,872
	Marine City	St. Clair County Independent Press	19,760
	Yale	Yale Expositor	1,874
St. Joseph	Colon	The Express	968
	White Pigeon	St. Joseph County News	2,345
Sanilac	Brown City	Brown City Banner	2,231
	Carsonville	Carsonville-Pt. Sanilac Journal	1,840
	Croswell	Sanilac Jeffersonian	2,654
	Deckerville	Deckerville Recorder	1,750
	Marlette	Marlette Leader	2,428
	Minden	Minden City Herald	1,506
	Sandusky	Sandusky Republican Tribune	3,142
	Sandusky	Sanilac County News-Advisor	19,956
Schoolcraft	Manistique	Manistique Pioneer-Tribune	3,575
Shiawassee	Durand	Durand Express	2,345
	Laingsburg	Laingsburg Press	805
	Perry	Shiawassee County Journal	6,678
Tuscola	Caro	Tuscola County Advertiser	11,143
	Cass City	Cass City Chronicle	3,344
	Kingston	Kingston Enterprise	465
	Mayville	Mayville Monitor	1,223
	Millington	Millington Herald-Lakeville Aerial	6,491
	Reese	Reese Reporter	427
	Vassar	Pioneer Times	8,350
Van Buren	Bangor	Bangor Advance	5,069
	Decatur	Decatur Republican	1,650
	Gobles	Gobles News	1,057
	Paw Paw	The Courier-Leader	3,458
Washtenaw	Chelsea	Chelsea Standard	3,700
	Dexter	Dexter Leader	2,411
	Manchester	Manchester Enterprise	1,564
	Milan	The Milan Booster-Leader	3,010

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1978 (cont.)

County	City	Name[a]	Circulation[b]
Wayne	Allen Park	Allen Parker	68,742
	Belleville	Belleville Enterprise and Legal Times	40,319
	Canton Twp.	Canton Eagle	40,319
	Canton Twp.	Canton Observer	7,070
	Dearborn	Dearborn Press and Guide	24,000
	Dearborn Heights	Dearborn Heights Leader	13,000
	Ecorse	Ecorse Advertiser	17,500
	Ecorse	Ecorse Enterprise	68,742
	Flat Rock	The Guardian	13,548
	Garden City	Garden City Observer	10,242
	Grosse Ille	The Downriver News-Herald	2,300
	Grosse Pointe Farms	Grosse Pointe News	15,610
	Hamtramck	The Citizen	14,280
	Highland Park	Highland Parker & North End News	7,304
	Inkster	Guide Beacon Inkster Ledger Star	40,319
	Lincoln Park	Lincoln Parker	68,742
	Livonia	Livonia Observer	28,634
	Melvindale	Melvindale Messenger	68,742
	Northville	The Record	23,157
	Plymouth	The Community Crier	17,750
	Plymouth	Plymouth Observer	9,5[illegible]
	Redford	Redford Observer	10,677
	River Rouge	River Rouge Herald	17,500
	Riverview	The News-Herald	3,969
	Romulus	Romulus Roman	40,319
	Southgate	Southgate Sentinel	68,742
	Taylor	Taylor Tribune	68,742
	Trenton	Trenton News-Herald	6,822
	Trenton	Trenton Times	10,125
	Wayne	Wayne Eagle	40,319
	Westland	Westland Eagle	40,319
	Westland	Westland Observer	10,104
	Woodhaven	The News-Herald	21,274
	Wyandotte	Wyandotte News Herald	12,393

SOURCE: Michigan Press Association, Michigan Newspaper Directory and Rate Book, 1979 (Lansing: 1979), pp. 57-99.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and figures supplied by publishers.

TABLE XVIII-5. MICHIGAN COLLEGE NEWSPAPERS: 1976-1977

School	Name	Frequency	Circulation
Adrian College	College World	Weekly	1,400
Albion College	Albion Pleiad	Weekly	2,000
Alma College	The Almanian	Weekly	2,000
Andrews University	Student Movement	Weekly	3,200
Aquinas College	Sunrise	Twice monthly	1,100
Bay De Noc Cmty College	Bay Beacon	Twice monthly	750
Calvin College	The Chimes	Weekly	3,600
Central Michigan University	Central Michigan Life	Thrice weekly	15,500
Davenport Coll of Business	The Oracle	Monthly	800
Delta College	Delta Collegiate	Weekly	3,500
Detroit Inst of Technology	Technonian	Monthly	1,350
Eastern Michigan University	Eastern Echo	Thrice weekly	15,000
Ferris State College	Ferris Torch	Weekly	9,000
Glen Oaks Cmty College	Voice of the Viking	Weekly	600
Grand Rapids Jr College	The Collegiate	Twice monthly	1,500
Grand Valley State College	Lanthorn	Weekly	7,000
Henry Ford Cmty College	The Ford Estate	Weekly	5,000
Hillsdale College	Collegian	Weekly	1,500
Hope College	College Anchor	Weekly	2,500
Jackson Cmty College	Phenix	Weekly	3,500
Kellogg Cmty College	Triad	Twice monthly	3,000
Lake Michigan College	Lake Michigan Journal	Weekly	3,000
Lape Superior State College	The Compass	Weekly	2,200
Lansing Cmty College	Look Out	Twice monthly	6,000
Lawerence Inst of Technology	Tech News	Weekly	3,000
Macomb County Cmty College	S. Campus Journal	Weekly	3,000
Mercy College of Detroit	Dateline	Twice monthly	2,500
Michigan State University	State News	Each weekday	39,500
Michigan Tech University	Tech Lode	Weekly	4,200
Monroe County Cmty College	The Agora	Twice monthly	1,000
Mott Community College	College Clamor	Weekly	9,000
Muskegon Cmty College	Bay Window	Twice monthly	3,750
Northern Michigan University	Northwind	Weekly	6,000
Northwood Institute	Northwood Times	Twice monthly	1,200
Oakland Cmty-Highland Lk	Highland Voice	Weekly	2,500

TABLE XVIII-5. MICHIGAN COLLEGE NEWSPAPERS: 1976-1977 (cont.)

School	Name	Frequency	Circulation
Oakland Cmty Jr. College	Auburn Hills Perceiver	Twice monthly	4,000
Oakland County Cmty College	Orchard Ridge Recorder	Twice monthly	6,400
Oakland University	Oakland Sail	Weekly	5,000
Schoolcraft Jr. College	Campus Globe	Twice monthly	4,200
Spring Arbor College	Crusader	Twice monthly	900
University of Detroit	Varsity News	Twice weekly	6,500
University of Michigan Ann Arbor	Michigan Daily	Tuesday-Saturday	7,500
University of Michigan Ann Arbor-Business School	The Monroe Street Jnl	Twice monthly	1,000
University of Michigan Dearborn	Michigan Journal	Twice monthly	2,600
University of Michigan Flint	University News	Twice monthly	2,000
Washtenaw Cmty College	Voice	Twice monthly	3,000
Wayne County Cmty College	The Open Door	Monthly	17,000
Wayne State University	The South End	Each weekday	15,000
Western Michigan University	Western Herald	Thrice weekly	15,000

SOURCE: CASS Student Advertising, Inc., National Rate Book and College Newspaper Directory, 1976-77 (Chicago, Ill.: 1976), pp. 80-85.

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Adrian				
WABJ	1946	1490 kHz	24 hr.	(a)
WQTE (FM)	1976	95.3 MHz (S)	n.a	3,000
WLEN (FM)	1965	103.9 MHz	24 hr.	3,000
*WVAC (FM)	1967	88.1 MHz		10
Albion				
WALM	1952	1260 kHz	5:30am-12	(b)
WUFN (FM)	1971	96.7 MHz	n.a.	1,200
Allendale				
*WSRX (FM)	1974	88.5 MHz	n.a.	10
Alma				
WFYC	1948	1280 kHz	6am-LSS	1,000
WFYC-FM	1965	104.9 MHz	6am-11:15pm (Sat.-Sun.)	3,000
Alpena				
WATZ	1946	1450 kHz	6am-11:15pm	(a)
WATZ-FM	1967	93.5 MHz	6am-11:15pm	3,000
WCML-FM	Not on air	91.7 MHz		
WHSB (FM)	1965	107.7 MHz	5:30am-11:30	100,000
Ann Arbor				
WAAM	1947	1600 kHz	24 hr.	5,000
*WCBN (FM)	1972	88.3 MHz (S)	n.a.	10
WIQB (FM)	1962	102.9 MHz (QS)	24 hr.	10,000
WPAG	1945	1050 kHz	6am-LSS	5,000
WPAG-FM	1969	107.1 MHz	6am-1am	3,000
*WUOM (FM)	1948	91.7 MHz	n.a.	230,000
Auburn Heights				
*WAHS (FM)	1975	89.5 MHz	n.a.	10
Bad Axe				
WLEW	1950	1340 kHz	5:30am-11:15pm	(a)
WLEW-FM	1956	92.1 MHz	5:30am-11:15pm	3,000
Battle Creek				
WBCK	1948	930 kHz	5:30-1am	(c)
WKNR	1925	1400 kHz	5am-1am	(a)
WKFR-FM	1963	103.3 MHz (S)	5am-1am	31,000
WWKQ	1963	1500 kHz	LSR-LSS	1,000
WDFP (FM)	1975	95.3 MHz (S)	5am-12m	3,000
Bay City				
WBCM	1925	1440 kHz	5am-2am	(b)
*WCHW (FM)	1973	91.3 MHz	n.a.	10
WGER (FM)	1961	102.5 MHz (S)	24 hr.	86,000
WHNN (FM)	1960	96.1 MHz	24 hr.	97,000
WXOX	1956	1250 kHz	6am-LSS	1,000

TABLE XVIII-6, MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Benton Harbor				
WHFB	1947	1060 kHz	LSR-LSS	5,000
WHFB-FM	1947	99.9 MHz (S)	5:30am-12m	9,200
Berrien Springs				
*WAUS (FM)	1971	90.9 MHz	n.a.	17,000
Big Rapids				
WBRN	1953	1460 kHz	6am-LSS	1,000
WBRN-FM	1964	100.9 MHz	6am-10pm	3,000
Birmingham				
WMJC (FM)	1958	94.7 (S)	n.a.	10,000
Bloomfield Hills				
*WBFH (FM)	1976	88.1	n.a.	10
Boyne City				
WCLX (FM)	N.O.A.	93.5 MHz	n.a.	1,200
Cadillac				
WATT	1945	1240 kHz	5:15am-12:15am	(a)
WITW (FM)	1974	96.7 MHz (S)	6am-12m	1,350
WKJF (FM)	1961	92.9 MHz (S)	6am-12m	100,000
WWAM	1968	1370 kHz	6am-12m	(c)
Caro				
WKYO	1962	1360 kHz	6am-LSS	500
WIDL-FM	1974	104.9 kHz	6am-11pm	3,000
Charlevoix				
WVOY	1974	1270 kHz	6am-LSS	5,000
Charlotte				
WCER	1956	1390 kHz	6am-LSS	5,000
WCER-FM	1965	92.7 MHz	6am-11pm	3,000
Cheboygan				
WCBY	1954	1240 kHz	6am-11pm	1,000
WCBY-FM	1968	105.1 MHz	n.a.	25,000
Clare				
WRNN	1960	990 kHz	LSR-LSS	250
WCRM (FM)	1967	95.3 MHz	LSR-10:30pm	3,000
Coldwater				
WTVB	1949	1590 kHz	5am-1am	(c)
WANG (FM)	1950	98.5 MHz	5am-12m	50,000
Dearborn				
WWKR	1946	1310 kHz	24 hr.	5,000
WNIC-FM	1950	100.3 MHz	24 hr.	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Detroit (Windsor, Ont.)				
CKLW	1932	800 kHz	24 hr.	50,000
Detroit				
WABX (FM)	1960	99.5 MHz (S)	24 hr.	36,000
WBFG (FM)	1961	98.7 MHz (S)	24 hr.	50,000
WCAR	1939	1130 kHz	24 hr.	(d)
WCAR-FM	1964	92.3 MHz	5am-12m	10,000
WDEE	1925	1500 kHz	24 hr.	(e)
*WDET (FM)	1948	101.9 MHz	n.a.	79,000
WDRQ (FM)	1947	93.1 MHz	24 hr.	20,000
*WDTR (FM)	1948	90.9 MHz	n.a.	17,000
WGPR (FM)	1961	107.5 MHz	24 hr.	50,000
WJLB	1926	1400 kHz	24 hr.	(a)
WJR	1922	760 kHz	24 hr.	50,000
WJR-FM	1948	96.3 MHz (S)	24 hr.	50,000
WJZZ (FM)	1960	105.9 MHz	24 hr.	34,000
WLDM (FM)	1949	95.5 MHz (S)	6am-2am	(f)
WMUZ (FM)	1959	103.5 MHz	24 hr.	115,000
WMZK (FM)	1941	97.9 MHz	24 hr.	50,000
WOMC (FM)	1948	104.3 MHz (S)	24 hr.	190,000
WQRS (FM)	1960	105.1 MHz (S)	7am-1am	50,000
WRIF (FM)	1948	101.1 MHz (S)	24 hr.	27,200
WWJ	1920	950 kHz	24 hr.	5,000
WWJ-FM	1941	97.1 MHz (S)	24 hr.	12,000
WWWW (FM)	1960	106.7 MHz (QS)	24 hr.	61,125
WXYZ	1925	1270 kHz	24 hr.	5,000
Dowagiac				
WDOW	1960	1440 kHz	6am-LSS	1,000
WDOW-FM	1971	97.7 MHz	6am-12pm	3,000
Drayton Plains				
*WTSD (FM)	1972	88.1 MHz (S)	n.a.	10
East Lansing				
WFMK (FM)	1959	99.1 MHz (S)	24 hr.	28,000
*WKAR	1922	870 kHz	n.a.	(g)
*WKAR-FM	1948	90.5 MHz	n.a.	125,000
WVIC	1965	730 kHz	6am-LSS	500
WVIC-FM	1963	94.9 MHz (S)	24 hr.	20,000
Elsie				
WOES (FM)	N.O.A.	91.3 MHz	n.a.	10
Escanaba				
WBDN	1958	600 kHz	6am-LSS	1,000
WDBC	1941	680 kHz	5:30am-12m	(h)
WKXY (FM)	1976	97.1 MHz	n.a.	89,800
Flint				
WAMM	1955	1420 kHz	6am-LSS	500
WLQB	1946	1570 kHz	6am-LSS	1,000
*WFBE (FM)	1953	95.1 MHz	n.a.	3,700

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Flint (cont.)				
WFDF	1922	910 kHz	4:45am-1am	(c)
WGMZ (FM)	1962	107.9 MHz (S)	24 hr.	50,000
WKMF	1953	1470 kHz	24 hr.	(c)
WTAC	1946	660 kHz	24 hr.	(b)
WTRX	1947	1330 kHz	24 hr.	(c)
WWCK (FM)	1964	105.5 MHz (S)	24 hr.	3,000
Fremont				
WSHN	1961	1550 kHz	6am-LSS	1,000
WSHN-FM	1971	100.1 MHz	5:55am-11pm	3,000
Garden City				
WIID	1963	1090 kHz	6am-LSS	250
Gaylord				
WATC	1950	900 kHz	6am-LSS	1,000
WWRM (FM)	1972	106.7 MHz (S)	5:45am-12m	50,000
Gladwin				
WJEB	1974	1350 kHz	6am-LSS	1,000
Grand Haven				
WGHN	1956	1370 kHz	6am-LSS	500
WFMG (FM)	1969	92.1 MHz (S)	6am-12m	3,000
Grand Rapids				
*WCSG (FM)	1973	91.3 MHz (S)	n.a.	20,000
WEHB (FM)	N.O.A.	89.9 MHz	n.a.	300
WFUR	1947	1570 kHz	6am-LSS	1,000
WFUR-FM	1960	102.9 MHz (S)	5:30am-1am	40,000
WGRD	1947	1410 kHz	6am-LSS	1,000
WGRD-FM	1962	97.9 MHz (S)	24 hr.	19,000
WCUZ	1945	1230 kHz	4:45am-1am	(a)
WJFM (FM)	1954	93.7 MHz	6am-3am	500,000
WLAV	1940	1340 kHz	24 hr.	(a)
WLAV-FM	1947	96.9 MHz (S)	24 hr.	28,000
WMAX	1954	1480 kHz	6am-LSS	5,000
WOOD	1924	1300 kHz	5am-1am	5,000
WOOD-FM	1962	105.7 MHz (S)	24 hr.	265,000
*WVGR (FM)	1961	104.1 MHz	n.a.	107,500
WYON (FM)	1965	101.3 MHz (S)	24 hr.	50,000
WZZM (FM)	1962	95.7 MHz (S)	24 hr.	50,000
Grayling				
WGRY	1970	1590 kHz	6am-LSS	1,000
New (FM)	N.O.A.	100.1 MHz	n.a.	3,000
Greenville				
WPLB	1960	1380 kHz	5am-12m	(b)
WPLB-FM	1962	107.3 MHz (S)	7:30am-12m	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Hancock				
WMPL	1957	920 kHz	6an-LSS	1,000
WMPL-FM	1966	93.5 MHz	6am-12m	3,000
Harrison				
WKKM	1975	92.1 MHz	6am-10pm	3,000
Hastings				
WBCH	1957	1220 kHz	6am-LSS	250
WBCH-FM	1968	100.1 MHz	6am-11pm	1,550
Highland Park				
*WHPR (FM)	1954	88.1 MHz	n.a.	10
Hillsdale				
WCSR	1955	1340 kHz	6am-12m	(j)
WCSR-FM	1973	92.1 MHz (S)	6am-12m	3,000
Holland				
WHTC	1948	1450 kHz	5am-12m	(a)
WHTC-FM	1963	96.1 MHz (S)	3pm-10:15pm	41,000
WJBL	1956	1260 kHz	6am-LSS	5,000
WJBL-FM	1961	94.5 MHz (S)	6am-12m	10,000
Houghton				
*WGGL-FM	1968	91.1 MHz (S)	n.a.	100,000
WHDF	1929	1400 kHz	6am-10:30pm	(a)
Houghton Lake				
WHGR	1954	1290 kHz	6am-12m	5,000
WJGS (FM)	1961	98.5 MHz (S)	6am-12m	100,000
Howell				
WHMI	1957	1350 kHz	6am-LSS	500
WHMI-FM	1977	93.5 MHz	n.a.	3,000
Inkster				
WCHB	1956	1440 kHz	24 hr.	(b)
Interlochen				
*WIAA (FM)	1963	88.3 MHz	n.a.	115,000
Ionia				
WION	1953	1430 kHz	6am-LSS	5,000
Iron Mountain				
WMIQ	1947	1450 kHz	6am-11pm	(a)
WJNR (FM)	1972	103.9 MHz	6am-12m	560
Iron River				
WIKB	1949	1230 kHz	6am-10pm (8am-10pm Sun.)	(a)

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Ironwood				
WJMS	1931	590 kHz	6am-12m	(c)
WIMI (FM)	1975	99.7 MHz	n.a.	100,000
WUPM (FM)	N.O.A.	106.9 MHz	n.a.	25,000
Ishpeming				
WJPD	1947	1240 kHz	5:55am-12m	(a)
WJPD-FM	1975	92.3 MHz (S)	5:55am-12m	100,000
WUPY	1959	970 kHz	6am-LSS	5,000
WMQT (FM)	1974	107.1 MHz	n.a.	540
Jackson				
WHFI (FM)	1958	94.1 MHz (S)	24 hr.	50,000
WIBM	1926	1450 kHz	24 hr.	(a)
WJCO	1963	1510 kHz	LSR-LSS	5,000
WKHM	1951	970 kHz	24 hr.	1,000
WJOX (FM)	1963	106.1 MHz	24 hr.	20,000
Kalamazoo				
*WIDR (FM)	1975	89.1 MHz	n.a.	10
WKMI	1947	1360 kHz	24 hr.	(c)
WKPR	1960	1420 kHz	6am-LSS	1,000
WKZO	1923	590 kHz	5:30am-1:05am	5,000
*WMUK (FM)	1951	102.1 MHz	n.a.	50,000
WQLR (FM)	1964	106.5 MHz (S)	24 hr.	40,000
WYYY	1956	1470 kHz	6am-LSS	500
Kentwood				
New AM	N.O.A.	1140 kHz	n.a.	(k)
Lansing				
WILS	1946	1320 kHz	24 hr.	(c)
WILS-FM	1967	101.7 MHz	24 hr.	3,000
WITL	1961	1010 kHz	LSR-LSS	500
WITL-FM	1961	100.7 MHz	24 hr.	55,000
WJIM	1934	1240 kHz	24 hr.	(a)
WJIM-FM	1960	97.5 MHz	6:45am-12m (7:30am-12m Sat. & Sun.)	28,000
Lapeer				
WMPC	1926	1230 kHz	n.a.	(a)
WTHM	1962	1530 kHz	LSR-LSS	5,000
WTHM-FM	1968	103.1 MHz	6am-9pm	3,000
Ludington				
WKLA	1944	1450 kHz	7am-10pm	(a)
WKLA-FM	1971	106.3 MHz (S)	7am-10pm	3,000
Manistee				
WMTE	1951	1340 kHz	5am-12m	(a)
WRRK (FM)	1970	97.7 MHz	5am-12m	3,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Manistique				
WTIQ	1965	1490 kHz	6am-10pm	(a)
Marine City				
WSMA	1951	1590 kHz	6am-LSS	1,000
Marquette				
WDMJ	1931	1320 kHz	5:50am-12m	1,000
WHWL (FM)	1965	95.7 MHz (S)	5:50am-12m	100,000
*WNMU (FM)	1963	90.1 MHz	n.a.	100,000
WUUN	1974	100.1 MHz	24 hr.	3,000
Marshall				
WELL (FM)	1968	104.9 MHz	n.a.	3,000
Mason				
WUNN	1967	1110 kHz	n.a.	(1)
Menominee				
WAGN	1952	1340 kHz	5:55am-10:30pm	(a)
Midland				
WMPX	1948	1490 kHz	24 hr.	(a)
WRCI (FM)	1976	93.5 MHz (S)	n.a.	3,000
WURN (FM)	1961	99.7 MHz (S)	n.a.	100,000
Monroe				
WHND	1956	560 kHz	6am-LSS	500
WVMO (FM)	1967	98.3 MHz	5:43am-12:05am	3,000
Mount Clemens				
WBRB	1956	1430 kHz	5am-LSS	500
WBRB-FM	1960	102.7 MHz	5am-1am (5am-2am Sat.) (7am-12m Sun.)	17,000
Mt. Pleasant				
WCEN	1949	1150 kHz	5:45am-11:15pm	1,000
WCEN-FM	1963	94.5 MHz	5:40am-11:15pm	16,000
*WCMU (FM)	1964	89.5 MHz	n.a.	100,000
*WMHW (FM)	1972	91.5 MHz	n.a.	32
Munising				
WGON	1956	1400 kHz	6am-10pm	(a)
WQXO-FM	1974	98.3 MHz	6am-10pm	1,000
Muskegon				
WKBZ	1926	850 kHz	5:30am-12m	1,000
WMUS	1947	1090 kHz	LSR-LSS	1,000
WMUS-FM	1962	106.9 MHz (S)	5:30am-12m	31,000
WTRU	1949	1600 kHz	5:30am-12:30am	5,000
WQWQ (FM)	1971	104.5 MHz (S)	24 hr.	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Muskegon Heights				
WKJR	1963	1520 kHz	LSR-LSS	10,000
WKJR-FM	1974	101.7 MHz	6am-12m	3,000
Newberry				
WMBY	1966	1450 kHz	6am-10pm	1,000
Niles				
WNIL	1956	1290 kHz	6am-LSS	500
WNIL-FM	1957	95.3 MHz (S)	6am-11pm	3,000
Novi				
WOVI (FM)	N.O.A.	89.5 MHz	n.a.	10
Oak Park				
*WOPR (FM)	1974	90.3 MHz	n.a.	19
Olivet				
*WOCR (FM)	1975	89.7 MHz	n.a.	10
Orchard Lake				
*WBLD (FM)	1974	89.3 MHz (S)	n.a.	10
Otsego				
WAOP	1962	980 kHz	6am-LSS	1,000
Owosso				
WOAP	1947	1080 kHz	LSR-LSS	1,000
WOAP-FM	1965	103.9 MHz	n.a.	2,800
Petoskey				
WJML	1966	1110 kHz	LST-LSS	10,000
WJML-FM	1965	98.9 MHz	5:30am-12m	100,000
WMBN	1946	1340 kHz	24 hr.	(a)
WMBN-FM	1967	96.7 MHz (S)	6am-11:15pm	1,000
Plymouth				
*WSDP (FM)	1972	89.3 MHz	n.a.	10
Pontiac				
WPON	1954	1460 kHz	24 hr.	1,000
Portage				
WBUK	1966	1560 kHz	6am-LSS	1,000
Port Huron				
WHLS	1938	1450 kHz	24 hr.	(a)
WSAQ (FM)	1964	107.1 MHz (S)	24 hr.	3,000
*WORW (FM)	1973	91.9 MHz	n.a.	10
WPHM	1947	1380 kHz	5:am-12m	5,000
*WSGR (FM)	1971	91.3 MHz	n.a.	10

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Rockford				
WJPW	1964	810 kHz	LSR-LSS	500
Rogers City				
WHAK	1948	960 kHz	6:15am-LSS (7:55am-LSS Sun.)	5,000
Royal Oak				
WEXL	1923	1340 kHz	6am-12m	(a)
*WOAK (FM)	1957	89.3 MHz	n.a.	10
Saginaw				
WKNX	1947	1210 kHz	LSR-LSS	10,000
WSAM	1940	1400 kHz	24 hr.	(a)
WKCQ (FM)	1947	98.1 MHz (S)	24 hr.	50,000
WIOG (FM)	1969	106.3 MHz (S)	6am-12m	3,000
WSGW	1950	790 kHz	5:30am-12m	(c)
WWWS (FM)	1968	107.1 MHz	24 hr.	2,000
St. Ignace				
WIDG	1966	940 kHz	LSR-LSS	5,000
St. Johns				
WRBJ	1959	1580 kHz	LSR-LSS	1,000
WRBJ-FM	1972	92.1 MHz (S)	6am-12m	3,000
St. Joseph				
WSJM	1956	1400 kHz	5am-1am	(a)
WIRX (FM)	1966	107.1 MHz (S)	5am-1am	3,000
Saline				
WNRS	1958	1290 kHz	6am-LSS	500
Sandusky				
WMIC	1965	1560 kHz	6am-LSS	1,000
WMIC-FM	1965	97.7 MHz	6am-11:15pm	3,000
Sault Ste. Marie				
WSOO	1940	1230 kHz	6am-12m	(a)
WSMM (FM)	1972	92.7 MHz	6am-1am	3,000
Southfield				
*WSHJ (FM)	1967	88.3 MHz	n.a.	125
South Haven				
WJOR	1961	940 kHz	LSR-LSS	1,000
Spring Arbor				
*WSAE (FM)	1963	89.3 MHz	n.a.	100,000
Sturgis				
WSTR	1951	1230 kHz	19 hr.	(a)
WSTR-FM	1953	99.3 MHz	19 hr.	1,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1978 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Tawas City-East Tawas				
WDBI	1973	101.7 MHz	5am-12m	3,000
WIOS	1958	1480 kHz	LSR-LSS	1,000
Three Rivers				
WLKM	1962	1510 kHz	LSR-LSS	500
WLKM-FM	1975	95.9 MHz	5:30am-11pm	3,000
Traverse City				
WCCW	1960	1310 kHz	6am-LSS	5,000
WCCW-FM	1966	92.1 MHz	24 hr.	840
WLDR (FM)	1966	101.9 MHz (S)	5:45am-11pm	50,000
WTCM	1941	1400 kHz	6am-11pm	(a)
WTCM-FM	1965	103.5 MHz (S)	6am-11pm	38,200
Warren				
*WPHS (FM)	1964	91.5 MHz	n.a.	10
West Branch				
WBMB	1971	1060 kHz	LSR-LSS	1,000
Whitehall				
WLRC	1968	1490 kHz	5:30am-12m	(a)
WLRC-FM	1975	95.3 MHz	5:30am-12m	3,000
Wyoming				
WYGR	1964	1530 kHz	LSR-LSS	500
Ypsilanti				
*WEMU (FM)	1965	88.1 MHz	n.a.	10
WSDS	1962	1480 kHz	6am-LSS	500
WYFC	1962	1520 kHz	LSR-LSS	250
Zeeland				
WZND (FM)	1971	99.3 MHz	5am-12:30am	3,000

SOURCES: Broadcasting Publications, Inc., Broadcasting Yearbook, 1978 (Washington, D.C.: 1978), pp. B-102 to B-109; and Standard Rate and Data Service, Inc., Spot Radio Rates and Data and Spot Radio, Small Markets (Skokie, Ill.: monthly) (operating schedule data).

NOTE: The operating schedule data pertain to 1975.

a. 1,000 watt days, and 250 watt nights.
b. 1,000 watt days, and 500 watt nights.
c. 5,000 watt days, and 1,000 watt nights.
d. 50,000 watt days, and 10,000 watt nights.
e. 50,000 watt days, and 5,000 watt nights.
f. 165,000 watt days, and 43,000 watt nights.
g. 10,000 watt days.
h. 10,000 watt days, and 1,000 watt nights.
i. Satellite to WVOM (FM), Ann Arbor.
j. 500 watt days, and 250 watt nights.
k. 500,000 watt days.
l. 250 watt days.

kHz: kilohurtz.
LSR-LSS: Local sunrise to local sunset.
MHz: megahurtz
N.O.A.: not on air yet.
QS: quadraphonic stereo.
S: stereo.
12m: midnight.tt nights
*: noncommercial stations.

TABLE XVIII-7. MICHIGAN TELEVISION STATIONS: 1978

City and call letters	Channel	On air	Major network affiliation	Effective radiated power (kilowatts) Visual	Aural
Alpena					
WBKB-TV	11	1975	CBS	316	63.2
*WCML-TV	6	1975	Ind.	100	15.1
Ann Arbor					
WRHT	31	(a)	n.a.	1,096	217.0
Battle Creek					
WUHQ-TV	41	1971	ABC	1,380	138.0
Cadillac					
WWTV	9	1954	CBS	316	51.3
Cheboygan					
WTOM-TV	4	1959	NBC[b]	100	20.0
Detroit					
CBET	9	1954	CBC[c]	325	65.0
WGPR-TV	62	1975	Ind.	759	75.9
WJBK-TV	2	1948	CBS	100	10.0
WKBD-TV	50	1965	Ind.	2,090	209.0
*WTVS	56	1955	PBS	617	61.7
WWJ-TV	4	1947	NBC	98	9.7
WXON	20	1968	Ind.	501	50.1
WXYZ-TV	7	1948	ABC	316	31.6
East Lansing					
*WKAR-TV	23	1972	PBS	1,100	219.0
Escanaba					
WJMN-TV	3	1969	NBC	100	20.0
Flint					
WEYI-TV	25	1953	CBC[c]	4,070	40.7
WJRT-TV	12	1958	ABC	316	31.6
WNEM-TV	5	1954	NBC	100	20.0
Grand Rapids					
*WGVC	35	1972	PBS	1,000	200.0
WOTV	8	1949	NBC	282	56.2
WZZM-TV	13	1962	ABC	295	63.0
Jackson					
WWLD-TV	18	(a)	n.a.	1,084	214.0
Kalamazoo					
WKZO-TV	3	1950	CBS	100	20.0
Lansing					
WJIM-TV	6	1950	CBS	100	20.0

TABLE XVIII-7. MICHIGAN TELEVISION STATIONS: 1978 (cont.)

City and call letters	Channel	On air	Major network affiliation	Effective radiated power (kilowatts) Visual	Aural
Marquette					
WLUC-TV	6	1956	CBS	100	20.0
*WNMU-TV	13	1972	PBS	316	63.1
Mount Pleasant					
*WCMU-TV	14	1967	PBS	39.8	7.9
Onondaga					
WILX-TV	10	1959	NBC	309	61.7
Sault Ste. Marie					
WGTQ	8	n.a.	ABC[d]	316	163.6
WWUP-TV	10	1962	CBS[e]	253	50.5
Traverse City					
WGTU	29	1971	ABC	1,000	200.0
WPBN-TV	7	1954	NBC	316	63.2
University Center					
*WUCM-TV	19	1964	PBS	562	56.2

SOURCE: Broadcasting Publications, Inc., Broadcasting Yearbook, 1978 (Washington, D.C.: 1978), pp. B-110 to B-112.

a. Not on the air yet.

b. Satellite of WPBN-TV Traverse City.

c. Windsor, Ontario, Canada.

d. Satellite of WGTU-TV Traverse City.

e. Satellite of WWTV Cadillac.

*: noncommercial stations.

n.a.: not available.

TABLE XVIII-8. BUSINESS AND RESIDENCE TELEPHONES IN MICHIGAN AND THE UNITED STATES: YEARS ENDED 31 DECEMBER 1959-1977

	Michigan				United States			
Year	Business	Residential	Total	Percentage of households with service[a]	Business	Residential	Total	Percentage of households with service[a]
1959	803,000	2,408,600	3,211,600	n.a.	19,856,400	50,962,500	70,818,900	n.a.
1960	829,300	2,486,500	3,315,800	n.a.	20,779,000	53,562,100	74,341,100	n.a.
1961	853,300	2,530,500	3,383,800	n.a.	21,693,500	55,731,900	77,425,400	79
1962	884,800	2,620,700	3,505,500	87	22,702,500	58,269,200	80,971,700	80
1963	914,200	2,726,300	3,640,500	88	23,609,400	60,840,900	84,450,300	81
1964	972,700	2,862,000	3,834,700	91	24,716,600	64,070,800	88,787,400	83
1965	1,020,400	3,044,600	4,065,000	93	26,008,300	67,650,500	93,658,800	85
1966	1,083,900	3,217,100	4,301,000	94	27,413,500	71,372,100	98,785,600	98
1967	1,139,900	3,368,000	4,507,900	94	28,929,300	74,822,600	103,751,900	88
1968	1,198,600	3,512,800	4,711,400	93	30,356,100	78,899,500	109,255,600	89
1969	1,265,800	3,691,500	4,957,300	95	32,220,600	82,980,100	115,200,700	90
1970	1,307,900	3,826,800	5,134,700	95	33,304,800	86,850,000	120,221,000	92
1971	1,332,400	4,012,200	5,344,600	97	34,444,900	90,695,900	125,140,800	93
1972	1,393,000	4,193,000	5,586,000	95	35,989,500	95,613,000	131,602,500	92
1973	1,440,927	4,419,084	5,860,011	98	37,434,884	100,853,505	138,228,389	94
1974	1,487,568	4,577,214	6,064,782	98	38,748,513	105,222,939	143,971,452	94
1975	1,490,220	4,761,455	6,251,675	98	39,497,650	109,510,153	149,007,803	94
1976	1,548,286	4,977,160	6,525,446	99	40,682,411	114,490,857	155,173,288	95
1977	1,611,508	5,157,834	6,769,342	100	42,319,549	119,752,597	162,072,146	96

SOURCE: Federal Communications Commission, Statistics of Communications Common Carriers, 1959 through 1977 (Washington, D.C.: annually), Table 6 (1977).

a. Households with service are the sum of residence main, apartment house PBX and residence service main telephones, and other residence PBX systems. There tends to be a slight overstatement of the proportion of households with telephone service.

n.a.: not available.

TABLE XVIII-9. SELECTED DATA OF CLASS A TELEPHONE CARRIERS IN MICHIGAN: YEARS ENDED 31 DECEMBER 1959-1977

Year	Miles of wire in cable (1,000)	Miles of aerial wire (1,000)	Miles of radio relay system	Central offices	Number of calls originating from company and service telephones[a] (millions)	
					Local	Toll
1959	13,261	387	1,804	627	5,165	157
1960	14,442	387	1,966	637	5,393	162
1961	15,315	379	1,869	651	5,378	164
1962	15,830	367	1,657	661	5,412	171
1963	16,534	360	1,749	667	5,704	186
1964	17,686	337	1,803	705	6,009	306
1965	19,062	318	2,048	712	6,450	235
1966	20,841	308	2,206	725	6,755	264
1967	23,032	288	2,191	805	7,220	295
1968	25,217	264	2,280	817	7,441	333
1969	27,503	226	2,432	833	7,956	351
1970	29,510	184	2,421	837	8,324	383
1971	31,279	157	2,588	848	8,887	407
1972	33,273	128	2,335	862	9,278	566
1973	35,825	108	2,801	883	9,672	676
1974	38,416	97	2,853	903	10,113	699
1975	40,691	76	3,473	926	10,116	976
1976	42,532	61	2,939	934	10,615	1,055
1977	44,328	52	2,362	941	11,105	1,186

SOURCE: Federal Communications Commission, Statistics of Communications Common Carrier, 1959 through 1977 (Washington, D.C.: annually), Table 8 (1977).

a. Partly estimated.

TABLE XVIII-10. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1974-1978

Company	Main office	1974	1975	1976	1977	1978
Alba	Alba	285	359	396	416	444
Allendale	Allendale	2,309	2,421	2,567	2,582	2,798
Au Gres	Au Gres	1,680	1,754	1,867	2,005	1,920
Augusta[a]	Augusta	--	--	--	1,232	1,270
Banfield	Delton	899	923	930	970	1,008
Baraga	Baraga	1,352	1,399	1,460	1,489	1,595
Barry County	Delton	3,258	3,350	3,358	3,417	3,461
Blanchard Tel. Assn., Inc.	Blanchard	765	759	784	798	843
Bloomingdale	Bloomingdale	1,227	974	1,040	1,071	1,129
Camden	Camden	2,136	3,928	3,887	4,022	4,105
Carr	Branch	588	650	680	725	758
Central[b]	Chesaning	6,485	6,668	7,066	13,913	14,771
Chatham	Chatham	1,512	1,597	1,710	1,838	1,937
Chippewa County	Brimley	488	472	622	691	648
Clayton	Clayton	503	505	526	530	541
Climax	Climax	664	694	712	725	754
Concord	Concord	1,184	1,239	1,274	1,303	1,345
Continental	Pinconning	25,762	26,911	28,440	30,547	32,347
Deerfield	Deerfield	1,841	1,878	1,936	1,944	2,035
Drenthe	Zeeland	449	469	452	455	474
Drummond Island	Carney	697	772	806	870	956
Farmers Mutual	Elsie	447	440	444	455	480
General	Main	374,487	379,388	387,887	403,385	417,929
	PBX	44,463	46,259	47,592	49,189	52,615
Hadley	Hadley	708	763	787	837	905
Hickory	Hickory Corners	940	843	879	952	990
Island	Chesaning	231	252	251	295	313
Kaleva	Kaleva	1,108	1,116	1,201	1,266	1,363
Kingsley	Kingsley	1,249	1,300	1,339	1,434	1,541
Lennon	Lennon	1,337	1,256	1,278	1,316	1,366
Mesick	Chesaning	1,182	1,343	1,462	1,553	1,579
Michigan Bell	Main	2,807,356	2,851,044	2,919,866	2,992,973	5,038,858
	PBX	643,859	639,077	670,573	696,225	712,685
Mid-Michigan Tel. Corporation	Stockbridge	25,448	26,321	26,880	27,983	28,886
Midway	Watton	626	665	681	683	656
Midwest[b]	Chesaning	3,133	3,248	3,357	--	--
Morenci Home	Morenci	1,560	1,585	1,594	1,439	1,623

TABLE XVIII-10. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1974-1978 (cont.)

Company	Main office	1974	1975	1976	1977	1978
Munising	Munising	2,790	2,840	2,973	3,033	3,051
Northern	Chesaning	484	543	618	785	791
Ogden	Blissfield	375	385	384	396	402
Ontonagon County	Ontonagon	3,305	3,395	3,350	3,412	3,345
Parma	Parma	1,498	1,521	1,533	1,568	1,532
Peninsula	Traverse City	570	612	657	676	717
Pigeon	Pigeon	1,118	1,142	1,147	1,160	1,166
Public Service[b]	Chesaning	2,522	2,506	2,656	--	--
Sand Creek	Adrian	990	950	951	975	978
Shiawassee	Perry	2,919	2,982	3,129	3,266	3,439
Southern	Brooklyn	7,167	7,612	7,875	8,338	8,735
Springport	Springport	1,215	1,211	1,297	1,308	1,318
Twining	Pigeon	323	350	365	399	400
United[a]	Augusta	1,132	1,181	1,208	--	--
Upper Peninsula	Carney	1,826	1,904	1,955	2,045	2,119
Waldron	Waldron	407	393	393	407	419
Westphalia	Westphalia	654	657	693	681	692
Winn	Winn	451	482	415	437	450
Wolverine	Millington	5,035	5,183	5,420	5,688	5,984
Amberg[c]		1,017	1,080	1,150	1,266	1,054
Niagara[c]		2,219	2,254	2,408	2,489	2,573

SOURCE: Michigan Public Service Commission, special release; and Michigan Independent Telephone Association, special release.

NOTE: General Telephone Company of Indiana, General Telephone Company of Ohio, and General Telephone Company of Wisconsin also have exchanges in Michigan.

a. United changed name to Augusta.

b. Midwest and Public Service merged into Central.

c. Headquartered in Wisconsin. Amberg had telephones in Goodman and Pembrine; Niagara in Aurora, Florence, Niagara, and Spread Eagle.

TABLE XVIII-11. BUSINESS AND RESIDENCE TELEPHONES IN PRINCIPAL MICHIGAN EXCHANGE AREAS: 31 DECEMBER 1976

Exchange area[a]	Business	Residence	Total	Telephones per 100 population
Ann Arbor	47,486	75,832	123,318	99.8
Detroit[b]	388,597	1,103,787	1,492,384	80.0
Farmington[c]	12,516	44,592	57,108	70.2
Flint	49,933	168,406	218,339	73.0
Grand Rapids[d]	73,480	217,786	291,266	82.5
Kalamazoo	43,553	104,725	148,278	82.4
Lansing[e]	77,888	139,467	217,355	86.1
Livonia[f]	34,907	134,950	169,857	62.3
Muskegon	20,162	56,687	78,849	54.7
Pontiac	29,786	88,787	118,873	81.1
Royal Oak	47,049	147,400	194,449	74.6
Saginaw	29,045	97,961	127,006	70.5
Southfield	47,347	62,281	109,628	141.0
Warren[g]	67,005	233,380	300,385	67.1

SOURCE: Federal Communications Commission, Statistics of Communications Common Carriers, 1977 (Washington, D.C.: 1976), Table 7.

a. The areas are generally larger than the corporate areas of the cities they serve.

b. Includes Dearborn, Dearborn Heights, Lincoln Park, and Taylor.

c. Includes Farmington Hills.

d. Includes Wyoming.

e. Includes East Lansing.

f. Includes Westland.

g. Includes Roseville, St. Clair Shores, and Sterling Heights.

XIX. ENERGY PRODUCTION AND CONSUMPTION

Statistics on hydrocarbon production, consumption, and reserves are compiled by the U. S. Bureau of Mines in cooperation with the Geological Survey Division of the Michigan Department of Natural Resources. Consumption of motor fuels is estimated by the U. S. Highway Administration on the basis of motor fuel tax receipts. The Michigan Public Service Commission publishes financial statistics on the operations of natural gas distribution and electric utilities. The Federal Power Commission is a leading source of data on the physical aspects of electricity production. The Edison Electric Institute publishes various statistics in its Statistical Yearbook of the Electric Utility Industry. The American Gas Association publishes data on gas utilities in its annual Gas Facts.

Consumption of fuels for heat and power is a regular feature of the Census of Manufactures, conducted twice each decade. The Housing Census yields information about the kinds of fuel used for space and water heating and cooking.

Related data on oil and gas wells and natural gas processing appear in Chapter XIII. A list of oil refineries in the state is presented in Chapter XV.

Data on plant and customers of each electric and gas distribution utility are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating public utilities.

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TABLE XIX-1. MICHIGAN PATTERNS OF ENERGY CONSUMPTION: 1977

Fuel	Residential	Commercial	Industrial	Transportation	Electric generation	Total[a]
L.P.G.	243.2	27.0	33.0	3.0	0	354.8
	(23.2)	(2.6)	(3.1)	(0.3)	(0)	(33.8)
Gasoline	0	0	73.6	4,859.6	0	4,970.9
	(0)	(0)	(9.2)	(607.2)	(0)	(621.1)
Distillate and diesel fuel oil	697.1	302.8	154.4	328.7	77.1	1,620.0
	(96.7)	(42.0)	(21.4)	(45.6)	(10.7)	(224.7)
Jet fuel	0	0	0	218.8	0	218.8
	(0)	(0)	(0)	(29.2)	(0)	(29.2)
Residual fuel oil	0	148.0	180.4	11.6	556.5	896.5
	(0)	(22.2)	(27.0)	(1.7)	(83.3)	(134.2)
Total petroleum products	940.3	477.8	441.4	5,421.7	633.6	806.1
	(119.9)	(66.8)	(60.7)	(684.0)	(94.0)	(1,043.0)
Natural gas	333,651	171,015	299,276	4,617	46,174	855,075
	(340.7)	(174.6)	(305.6)	(4.7)	(47.1)	(873.0)
Coal	173	101	8,485	0	20,047	28,806
	(4.4)	(2.5)	(213.6)	(0)	(504.6)	(725.1)
Hydro and nuclear	0	0	0	0	128.7	128.7
	(0)	(0)	(0)	(0)	(128.7)	(128.7)
Other	0	33.9	79.1	0	0	113.0
	(0)	(33.9)	(79.1)	(0)	(0)	(113.0)
Electricity	21.9	16.0	32.5	0	- 70.7	0
	(74.7)	(54.6)	(110.9)	(0)	(-241.2)	(0)
TOTAL	(539.7)	(332.4)	(769.9)	(688.7)	(533.2)	(2,882.8)

SOURCE: Michigan Energy Administration, special release.

NOTE: Petroleum products in millions of gallons, natural gas in trillions of cubic feet, coal in thousands of tons, hydro and nuclear, and other in trillions of British thermal units, and electricity in kilowatt hours. The figures in parentheses are in trillions of British thermal units. Totals in the last line are in trillions of British thermal units.

a. Includes agricultural.

TABLE XIX-2. CONSUMPTION OF NATURAL GAS IN MICHIGAN, BY TYPE OF CONSUMER: 1947-1977

(Millions of cubic feet)

Year	Residential	Commercial	Industrial	Electric utilities[a]	Other[a]	Total
1947	44,065	7,406	29,100	—	—	80,571
1948	43,807	6,882	25,289	—	—	75,978
1949	47,582	7,320	29,413	—	—	84,315
1950	75,711	10,746	40,723	—	—	127,180
1951	99,307	13,272	41,704	—	—	154,283
1952	103,039	13,870	47,082	—	—	163,991
1953	103,883	14,008	60,416	—	—	178,307
1954	118,479	15,339	55,104	—	—	188,922
1955	128,169	16,522	62,314	—	—	207,005
1956	155,140	20,313	68,012	—	—	243,465
1957	169,997	26,619	75,737	—	—	272,353
1958	173,207	32,019	92,878	—	—	298,104
1959	192,963	38,456	101,337	—	—	332,756
1960	201,977	43,001	123,553	—	—	368,531
1961	218,084	42,838	146,810	—	—	407,732
1962	234,483	64,495	144,699	—	—	443,677
1963	242,886	68,676	152,015	—	—	463,667
1964	250,971	74,367	175,290	—	—	500,628
1965	270,996	84,834	202,410	—	—	558,240
1966	286,839	95,282	237,742	—	—	619,863
1967	302,472	107,796	279,178	—	—	689,446
1968	315,694	115,075	250,906	6,582	2,049	690,306
1969	333,264	127,848	286,856	15,566	2,214	765,748
1970	340,033	130,589	290,413	32,163	2,119	795,317
1971	343,773	141,821	273,184	69,777	4,396	832,951
1972	355,266	152,874	272,319	58,953	7,096	846,508
1973	341,607	172,202	337,484	46,412	8,072	905,777
1974	346,116	181,738	300,680	46,623	8,348	1,035,194
1975	334,866	177,218	301,573	47,151	4,731	865,539
1976	339,417	175,097	297,446	53,509	3,123	868,592
1977	299,199	129,286	259,044	32,152	1,980	721,661

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 9 (1975); and Bureau of Mines, special release (1976 and 1977 data).

a. Included in "Industrial" prior to 1968.

TABLE XIX-3. ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1947-1978

Year	Michigan natural gas				United States Total
	Non-associated[a]	Associated-dissolved[b]	Underground storage[c]	Total	
1947	124,339	44,130	5,148	173,617	166,081,307
1948	121,502	45,876	15,609	182,987	173,869,340
1949	145,642	47,495	21,774	214,911	180,381,344
1950	--	--	--	195,074	185,592,699
1951	119,001	41,366	42,648	203,025	193,811,500
1952	132,752	38,645	83,146	254,543	199,716,225
1953	34,629	46,780	194,110	275,519	211,447,132
1954	31,194	85,703	213,203	330,100	211,710,732
1955	46,764	73,013	206,097	325,874	223,697,445
1956	45,596	82,098	234,092	361,786	237,774,569
1957	84,941	80,980	278,107	444,028	246,569,255
1958	121,669	104,627	271,817	498,113	254,142,037
1959	116,255	113,889	285,259	515,403	262,596,593
1960	116,015	128,427	341,316	585,758	263,758,800
1961	138,966	158,562	369,136	666,664	267,727,671
1962	128,620	144,733	377,207	650,560	273,765,604
1963	112,403	138,924	471,485	722,812	276,151,233
1964	151,853	127,372	495,051	774,276	281,251,454
1965	108,141	127,174	510,489	745,804	286,468,923
1966	73,556	118,999	580,576	773,131	289,332,805
1967	90,774	87,711	582,427	760,912	292,907,703
1968	77,274	79,909	600,243	757,426	287,349,856
1969	73,268	82,186	595,510	750,964	275,108,835
1970	211,134	112,530	616,007	939,671	290,746,408
1971	179,479	184,541	652,462	1,016,482	278,805,618
1972	293,938	385,580	617,297	1,296,815	266,084,846
1973	492,825	431,086	624,597	1,548,508	249,950,207
1974	477,613	455,230	525,411	1,458,254	237,132,497
1975	483,268	536,766	586,715	1,606,749	228,200,176
1976	528,778	524,475	544,893	1,598,146	216,026,074
1977	614,184	587,542	589,474	1,791,200	208,877,878
1978	607,556	562,190	598,835	1,768,581	200,301,707

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); and Bureau of Mines, special release (1977 data).

a. Free gas not in contact with crude oil in the reservoir.

b. Associated gas is free gas in contact with crude oil in the reservoir; dissolved gas is gas in solution with crude oil in the reservoir.

c. Gas held in underground reservoirs for storage purposes only.

TABLE XIX-4. PRODUCTION AND DISPOSITION OF NATURAL GAS IN MICHIGAN AND INTERSTATE NATURAL GAS MOVEMENTS TO AND FROM MICHIGAN: 1960-1977

(Millions of cubic feet)

Year	Production		Disposition			Average wellhead value (cents per mcf)	Interstate movements	
	From gas wells	From oil wells	Used for repressuring	Vented and flared	Marketed production		Deliveries to Canada	Receipts from other states
1960	18,900	8,000	2,087	4,023	20,790	21.4	0	371,540
1961	20,000	12,200	4,023	480	27,697	21.1	0	408,972
1962	18,800	10,500	146	167	28,987	21.3	0	429,472
1963	25,200	10,400	1,640	1,110	32,850	27.1	0	471,030
1964	21,100	12,600	1,608	704	31,388	25.4	0	493,665
1965	24,700	12,200	1,900	442	34,558	25.1	0	547,370
1966	26,868	16,121	8,353	516	34,120	25.2	20,174	653,316
1967	22,709	20,383	7,642	1,861	33,589	24.7	40,418	698,475
1968	24,151	19,779	2,330	1,120	40,480	25.1	68,045	742,934
1969	22,285	16,405	1,719	808	36,163	25.7	29,770	776,010
1970	23,774	16,264	378	809	38,851	26.7	10,643	791,773
1971	10,968	15,482	788	0	25,662	26.4	14,236	839,385
1972	13,523	21,730	0	1,032	34,221	30.7	15,426	823,515
1973	23,272	22,424	0	1,117	44,579	39.2	14,736	925,952
1974	45,745	24,719	63	1,268	69,133	50.4	13,232	869,059
1975	71,907	31,994	176	1,612	102,113	63.4	10,153	826,505
1976	81,628	40,003	327	2,042	119,262	89.5	7,461	742,482
1977	86,037	47,189	981	2,291	129,954	101.0	0	664,617

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); and Bureau of Mines, special release (1976 and 1977 data).

TABLE XIX-5. PRODUCTION OF SYNTHETIC NATURAL GAS AT CONSUMERS POWER COMPANY'S MARYSVILLE SNG PLANT BY MONTH: 1974-1978

(In millions of cubic feet at 14.73 PSIG)

Month	Year				
	1974	1975	1976	1977	1978
January	3,248,084	7,024,513	6,873,355	5,992,839	2,463,415
February	3,071,307	5,021,119	6,226,466	5,296,749	2,085,863
March	3,546,916	4,674,565	4,618,923	6,354,009	2,351,936
April	6,074,106	6,803,708	3,376,195	2,235,411	730,264
May	5,850,164	6,798,791	4,425,447	0	0
June	1,975,330	1,752,392	5,431,891	3,160,746	0
July	4,011,690	2,374,697	5,054,170	3,176,918	1,630,270
August	5,343,359	6,760,202	4,734,832	3,027,598	2,441,129
September	5,184,105	6,725,410	3,051,236	2,877,913	0
October	6,573,576	6,608,693	3,629,950	2,818,442	1,925,806
November	5,828,594	5,842,241	5,684,299	2,174,487	1,628,098
December	5,208,407	6,343,416	6,252,708	3,018,162	2,224,749

SOURCE: Consumers Power Company, special release.

TABLE XIX-6. PRODUCTION OF NATURAL GAS LIQUIDS FOR FUEL AND CHEMICAL USE AT NATURAL GAS PROCESSING PLANTS AND REFINERIES IN MICHIGAN: 1967-1977

(Thousand barrels)

Year	Natural gas processing plants				Crude oil refineries	
	Propane	Butanes[a]	Natural gasoline[b]	Plant condensate	Propane	Butanes[a]
1967	874	540	1,126	13	1,318	99
1968	887	497	1,051	15	1,381	63
1969	771	426	909	12	1,418	99
1970	667	509	591	7	1,357	83
1971	648	327	594	4	1,497	45
1972	523	310	387	4	1,604	110
1973	463	228	366	4	1,224	106
1974	471	378	462	0	1,253	126
1975	581	767	654	0	1,248	2
1976	536	679	3,497	0	1,351	385
1977	565	768	5,566	0	1,185	299

SOURCE: Bureau of Mines, Mineral Yearbook-Metals, Minerals and Fuels, 1965 through 1975 (Washington, D.C.: annually), Natural Gas Liquids section, Tables 6 and 13 and special release (1976 and 1977 data).

a. Includes propane-butane mixture.

b. Includes isopentane.

TABLE XIX-7. SALES OF LIQUEFIED PETROLEUM GASES IN MICHIGAN, BY USE: 1950-1977

(Thousands of gallons)

Year	Residential and commercial[a]	Internal combustion[b]	Industrial[a]	Gas utilities[c]	Miscellaneous uses[d]	Total[d]
1950	42,781	1,075	22,018	27,294	1,416	94,584
1951	42,892	2,011	23,302	27,814	2,660	98,679
1952	41,622	2,543	19,881	14,058	3,243	81,347
1953	42,871	4,252	21,746	11,089	3,246	83,204
1954	47,074	3,515	20,704	6,409	1,940	79,642
1955	52,763	4,347	22,962	6,556	2,506	89,134
1956	59,714	4,043	20,737	4,011	12,653	101,158
1957	62,892	4,851	20,841	4,342	4,971	97,897
1958	72,142	3,256	14,516	2,318	3,605	95,837
1959	88,530	1,538	8,865	1,342	4,472	104,747
1960	95,835	3,881	11,852	995	14,643	127,206
1961	93,155	3,936	10,821	1,743	407	110,062
1962	100,923	4,592	13,380	2,462	445	121,802
1963	128,441	5,454	12,671	5,547	458	152,571
1964	115,546	4,652	15,295	3,613	1,040	140,146
1965	115,907	4,883	22,239	4,029	612	147,670
1966	148,830	6,151	16,007	4,227	1,160	176,375
1967	190,510	10,205	16,595	606	1,093	219,009
1968	197,391	8,524	19,388	2,517	1,036	228,856
1969	229,263	11,195	20,921	2,588	1,877	265,844
1970	221,994	7,202	13,735	3,467	1,545	247,943
1971	242,431	7,922	14,538	3,779	1,730	270,400
1972	289,068	9,105	14,017	5,555	2,313	320,058
1973	287,653	11,032	14,402	5,295	4,757	323,139
1974	270,751	10,961	16,815	5,645	9,077	313,249
1975	257,899	9,857	13,954	3,567	14,463	299,740
1976	285,935	15,509	16,797	3,708	30,865	352,824
1977	270,269	18,579	16,501	5,539	43,983	354,871

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1950 through 1967 (Washington, D.C.: annually), Natural Gas Liquids Section, Table 14 (1967 and 1977 data); and Bureau of Mines, special release (1968 through 1976 data).

a. Heating fuel.

b. Motor fuel.

c. Substitutes for natural gas in mains.

d. Excludes gases used in chemical manufacturing after 1960.

TABLE XIX-8. ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS AND CRUDE OIL IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1960-1978

Year	Natural gas liquids[a] (thousand barrels) Michigan Nonassociated with oil	Michigan Associated-dissolved[b]	Michigan Total	United States total	Crude oil (million barrels) Michigan	Crude oil (million barrels) United States
1960	580	1,039	1,619	6,816,059	78	31,613
1961	695	3,621	4,316	7,049,096	79	31,759
1962	2,001	3,423	5,424	7,311,517	75	31,389
1963	2,048	3,278	5,326	7,673,978	69	30,970
1964	969	4,892	5,861	7,746,632	58	30,991
1965	1,565	3,351	4,916	8,023,534	53	31,352
1966	984	3,057	4,041	8,328,966	71	31,452
1967	1,461	2,083	3,544	8,614,231	63	31,377
1968	1,429	2,163	3,592	8,598,108	55	30,707
1969	1,375	2,681	4,056	8,143,174	52	29,632
1970	5,437	4,466	9,903	7,702,941	46	39,001[c]
1971	4,616	7,968	12,584	7,304,227	59	38,063[c]
1972	5,531	13,495	19,026	6,786,559	—	36,339[c]
1973	7,507	17,539	25,046	6,454,707	72	35,300[c]
1974	4,906	15,358	20,264	6,350,449	82	34,250
1975	3,984	16,649	20,633	6,267,830	93	32,682
1976	5,081	17,316	22,397	6,401,967	139	30,942
1977	11,183	34,015	45,198	5,994,365	133	29,486
1978	20,857	44,836	65,693	5,925,852	190	27,804

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1960 through 1974 (Washington, D.C.: annually), Natural Gas Liquids section, Table 9, and Crude Petroleum and Products section, Table 13 (1975 data); and Bureau of Mines, special release (1978 data).

a. Natural gasoline, LP gases, and condensate.

b. Associated natural gas liquids are in contact with crude oil in the reservoir; dissolved natural gas liquids are in solution with crude oil in the reservoir.

c. Includes reserves in the Prudhoe Bay Permo-Triassic reservoir, discovered in 1968 and not included prior to 1970.

TABLE XIX-9. MOTOR FUEL CONSUMPTION IN MICHIGAN, BY TYPE OF FUEL AND HIGHWAY-NONHIGHWAY USES: 1947-1977

(In millions of gallons)

Year	Highway			Gasoline nonhighway	Gasoline losses[b]	Total[c]
	Gasoline	Other[a]	Total			
1947	n.a.	n.a.	1,345	255	22	1,622
1948	n.a.	n.a.	1,461	244	24	1,729
1949	1,521	8	1,529	223	24	1,776
1950	1,663	9	1,672	265	27	1,964
1951	1,750	12	1,762	298	29	2,089
1952	1,818	12	1,830	278	29	2,137
1953	1,991	17	2,008	278	32	2,318
1954	2,043	18	2,061	183	34	2,278
1955	2,217	20	2,237	188	36	2,461
1956	2,249	23	2,272	198	36	2,506
1957	2,324	26	2,350	213	25	2,588
1958	2,338	26	2,364	208	24	2,596
1959	2,428	39	2,467	201	26	2,694
1960	2,517	47	2,564	194	27	2,785
1961	2,528	53	2,581	186	29	2,796
1962	2,610	62	2,672	183	29	2,884
1963	2,790	76	2,866	185	29	3,080
1964	2,969	90	3,059	188	31	3,278
1965	3,130	111	3,241	197	32	3,470
1966	3,292	131	3,423	225	34	3,682
1967	3,384	143	3,527	246	34	3,807
1968	3,634	164	3,798	277	37	4,112
1969	3,843	188	4,031	297	39	4,367
1970	3,908	189	4,097	199	40	4,336
1971	4,063	219	4,282	183	42	4,507
1972	4,338	249	4,587	182	45	4,813
1973	4,524	286	4,810	197	48	5,055
1974	4,324	276	4,600	155	44	4,799
1975	4,386	264	4,650	182	45	4,878
1976	4,640	303	4,943	183	47	5,173
1977	4,710	338	5,048	176	49	5,273

SOURCE: Federal Highway Administration, Highway Statistics, 1947 through 1974 (Washington, D.C.: annually), Tables MF-21, 25, and 26 (1974), and special release (1975-1977 data).

a. Diesel fuel and liquified petroleum gas.

b. Evaporation, handling, and so forth.

c. Excludes aviation jet fuels purchased by the federal government for military use.

n.a.: not available.

TABLE XIX-10. CONSUMPTION OF SELECTED PETROLEUM PRODUCTS IN MICHIGAN: 1952-1977

(Thousands of barrels)

Year	Kerosene[a]	Distillate fuel oil	Residual fuel oil[b]
1952	5,530	22,268	14,153
1953	5,109	22,351	14,809
1954	5,388	24,625	14,675
1955	5,278	27,402	15,387
1956	4,893	29,071	16,008
1957	4,221	28,995	15,330
1958	6,004	29,385	9,340
1959	7,491	28,387	13,498
1960	4,064	30,464	11,242
1961	6,158	30,547	9,896
1962	6,973	31,131	9,275
1963	5,960	30,471	9,746
1964	5,788	29,576	8,905
1965	5,884	31,079	8,011
1966	4,577	32,127	7,634
1967	2,882	37,376	5,415
1968	2,927	36,601	5,667
1969	2,785	37,473	6,704
1970	3,124	38,108	10,059
1971	3,018	41,684	11,605
1972	2,645	48,660	11,388
1973	1,995	47,146	14,560
1974	1,600	44,204	14,876
1975	1,390	41,883	19,239
1976	1,567	43,826	20,656
1977	1,334	44,659	21,345

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Table 24 (1975 gasoline data); and Bureau of Mines, special release (1976 gasoline data, and 1967 through 1977 kerosene, distillate, and residual data).

a. Excludes jet fuel.

b. Includes crude oil used directly as residual.

TABLE XIX-11. CRUDE RUNS TO STILLS, REFINERY RECEIPTS OF CRUDE OIL, AND PRODUCTION OF GASOLINE IN MICHIGAN: 1952-1977

(Thousands of barrels)

Year	Crude runs to stills	Refinery receipts			Gasoline production
		Michigan crude	Other U.S. crude	Canadian crude	
1952	40,676	13,605	27,321	0	16,929
1953	42,067	12,880	30,059	0	16,942
1954	41,846	13,559	28,860	0	16,140
1955	45,595	12,646	33,589	0	17,894
1956	50,708	11,681	38,356	1,766	19,502
1957	49,414	11,227	37,499	1,535	19,525
1958	44,924	9,412	34,926	1,351	18,294
1959	50,408	10,180	38,611	1,888	19,908
1960	49,768	15,610	31,764	2,542	20,988
1961	47,973	18,453	23,815	5,622	20,513
1962	49,152	17,320	24,342	7,437	21,431
1963	51,380	18,304	26,857	6,227	23,710
1964	51,659	17,423	29,282	4,971	24,989
1965	52,192	14,759	32,184	5,229	25,486
1966	52,949	14,139	32,189	6,686	27,782
1967	50,150	12,800	29,204	8,411	25,664
1968	53,525	12,649	26,249	14,461	26,478
1969	51,877	11,640	27,833	12,547	26,560
1970	53,396	11,159	24,504	17,799	26,804
1971	56,395	10,847	27,381	17,932	27,399
1972	58,447	12,306	28,446	17,780	27,047
1973	44,853	11,624	13,974	19,409	20,509
1974	43,255	12,231	14,951	15,943	19,543
1975	41,318	17,032	15,336	9,248[a]	19,404
1976	45,417	22,123	12,204	11,032	21,230
1977	47,161	25,556	14,247	7,445	21,453

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); and Bureau of Mines, special release (1976 and 1977 data).

a. Includes 418,000 barrels of non-Canadian foreign crude.

TABLE XIX-12. PRODUCING OIL WELLS, AVERAGE PRODUCTION, AND VALUE OF CRUDE PETROLEUM AT WELLS IN MICHIGAN: 1947-1977

Year	Approximate number of oil wells producing 31 December	Average production per well per day[a] (barrels	Total value at wells (thousands of dollars)	Average value per barrel (dollars)
1947	3,540	12.6	34,540	2.13
1948	3,550	13.0	48,250	2.86
1949	3,820	12.3	45,420	2.75
1950	3,950	11.2	42,730	2.70
1951	3,800	9.8	37,870	2.72
1952	3,980	9.3	35,250	2.66
1953	4,000	8.4	35,870	2.92
1954	4,173	8.1	35,600	2.96
1955	4,034	7.5	32,900	2.92
1956	4,191	7.1	30,824	2.87
1957	3,995	6.8	31,117	3.06
1958	3,895	6.4	27,366	2.94
1959	4,130	7.1	30,688	2.94
1960	4,348	10.3	46,266	2.91
1961	4,301	12.0	55,182	2.92
1962	4,282	10.9	48,775	2.85
1963	4,234	10.3	45,523	2.85
1964	4,151	10.2	43,839	2.81
1965	4,036	9.9	41,091	2.79
1966	4,141	9.6	40,913	2.87
1967	4,004	9.2	39,455	2.89
1968	4,27[illegible]	8.6	38,287	2.95
1969	3,878	8.2	37,494	3.07
1970	4,311	7.8	36,246	3.10
1971	4,046	7.8	38,859	3.27
1972	3,685	9.2	41,556	3.20
1973	3,733	10.8	59,413	4.07
1974	4,201	12.4	154,746	8.59
1975	3,655	17.0	262,352	10.74
1976	3,770	22.4	329,637	10.84
1977	3,903	23.5	362,722	11.00

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 10 and 55 (1975 data); and Bureau of Mines, special release (1976 and 1977 data).

a. Based on average number of wells during the year.

TABLE XIX-13. DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE FOR CONSUMPTION IN MICHIGAN, BY TYPE OF CUSTOMER: 1946 AND 1957-1978

(Thousand short tons)

Year	Electric utilities	Coke and gas plants	Retail dealers	All others	Total
1946	—	3,040[a]	8,460	13,709[b]	25,209
1957	9,838	4,877	3,368	8,172	26,255
1958	8,502	3,082	2,858	7,956	22,384
1959	10,675	4,489	2,892	9,175	27,231
1960	10,191	4,517	2,458	7,910	25,076
1961	9,997	4,121	2,514	7,695	24,327
1962	12,276	4,249	2,358	8,372	27,255
1963	13,582	4,813	2,154	9,339	29,888
1964	14,690	5,309	1,771	9,166	30,936
1965	16,966	5,338	2,032	9,075	33,411
1966	18,464	5,012	1,831	9,463	34,770
1967	19,605	4,591	1,485	9,278	34,959
1968	20,832	4,914	1,474	9,567	36,787
1969	21,432	4,823	1,166	8,253	35,674
1970	23,244	4,942	1,008	7,439	36,633
1971	19,416	4,861	817	7,531	32,625
1972	21,424	5,378	649	7,634	35,085
1973	20,294	4,876	561	5,954	31,685
1974	20,623	3,835	351	4,441	29,250
1975	21,802	5,343	262	3,883	31,290
1976	21,197	4,493	248	3,867	29,805
1977[c]	21,165	4,029	160	3,447	28,801
1978[c]	21,192	2,928	73	3,415	27,608

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1946 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); and Bureau of Mines, special release (1976-1978 data).

a. By product and water gas plants.

b. Industrial; includes electric utilities.

c. Prior to the fourth quarter of 1977, data collection was on a voluntary basis, with some estimating by the Bureau of Mines. Reporting now is mandatory. Since the third quarter of 1977, only actual company figures are tallied to develop state and national totals. The data for 1977 and 1978 are not strictly comparable with each other, therefore, nor with previous years' figures.

TABLE XIX-14. OIL AND NATURAL GAS PRODUCTION IN MICHIGAN, BY COUNTY: 1977

County	Oil (barrels)	Natural gas (000 cubic feet)	County	Oil (barrels)	Natural gas (000 cubic feet)
Allegan	119,855	26,684	Manistee	6,646,012	18,945,369
Antrim	291,213	1,422,711	Mason	304,155	3,448,206
Arenac	182,385	0	Mecosta	29,547	45,785
Barry	8,626	0	Midland	157,126	0
Bay	176,217	0	Missaukee	592,958	523,537
Benzie	28,175	28,827	Monroe	3,348	0
Calhoun	1,663,128	5,222,287	Montcalm	73,396	0
Cass	17,353	0	Muskegon	6,592	0
Cheboygan	0	0	Newaygo	16,393	0
Clare	322,295	57,924	Oakland	1,972	223,900
Crawford	1,155,346	1,379,297	Oceana	27,090	0
Eaton	409,872	3,115,403	Ogemaw	591,099	158,071
Genesee	21,559	0	Osceola	180,052	26,404
Gladwin	271,465	0	Oscoda	358	0
Grand Traverse	4,390,810	44,980,090	Otsego	6,233,980	12,973,767
Gratiot	10,253	3,008	Ottawa	61,588	0
Hillsdale	1,097,890	3,571,779	Presque Isle	4,362	0
Ingham	2,186,817	4,082,701	Roscommon	357,517	248,043
Isabella	134,817	0	Saginaw	15,338	0
Jackson	316,286	2,404,481	St. Clair	893,753	1,642,377
Kalkaska	3,025,639	23,603,719	Shiawassee	5,633	0
Kent	55,770	753	Tuscola	49,724	68,501
Lake	83,452	0	Van Buren	10,363	0
Lapeer	120,267	27,961	Washtenaw	2,528	0
Livingston	1,878	949,325	Wayne	7,585	0
Macomb	4,655	1,877,422	Wexford	595,461	2,118,058
			Total	32,964,503	133,226,452

SOURCE: Department of Natural Resources, Michigan's Oil and Gas Fields, 1977, Annual Statistical Summary 28 (Lansing: 1978), p. 8.

TABLE XIX-15. OIL PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1976, 1977, AND CUMULATIVE THROUGH 1977

	First year of production	Production (in barrels) 1976	1977	Cumulative thru 1977
Mississippian				
Marshall	1938	892	937	82,427
Berea	1925	22,089	22,261	2,487,327
Devonian				
Traverse	1927	414,762	490,336	105,814,520
Dundee-Reed City	1927	1,425,009	1,422,637	338,361,062
Detroit River	1939	2,399,423	2,269,774	65,806,454
Silurian				
Salina-Niagaran	1952	24,115,191	26,832,419	103,999,913
Ordovician				
Trenton-Black River	1935	2,103,997	1,926,139	117,830,582
Total barrels, all formations		30,421,363	32,964,503	734,382,285

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977, Annual Statistical Summary 28 (Lansing: 1978), Tables 8 and 10.

TABLE XIX-16. GAS PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1976, 1977, AND CUMULATIVE THROUGH 1977

	First year of production	Production (In thousands of cubic feet) 1976	1977	Cumulative thru 1977
Mississippian				
Stray-Marshall	1931	169,433	43,051	213,581,642
Berea	1936	38,827	59,301	10,952,447
Devonian				
Antrim Shale	1947	83,923	170,395	1,670,012
Traverse	1934	0	12,826	8,983,860
Dundee-Reed City	1929	64,126	32,146	41,379,459
Detroit River	1946	1,306,451	1,123,994	72,262,785
Silurian				
Salina-Niagaran	1929	109,681,927	123,858,773	681,736,730
Ordovician				
Trenton-Black River	1954	8,905,918	7,925,966	193,369,119
Total mcf, all formations		120,250,105	133,226,452	1,227,049,019[a]

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977, Annual Statistical Summary 28 (Lansing: 1978), Tables 9 and 11.

a: Does not include 3,050,143 Mcf of unassigned gas from early records.

TABLE XIX-17. TYPICAL NET MONTHLY ELECTRIC BILLS FOR RESIDENTIAL SERVICE IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANUARY 1978

	Minimum bill		100	250	500	750	1000
	Amount	Kwh inc.	kwh	kwh	kwh	kwh	kwh
Alpena Power Co.	$2.00	36	$5.18	$10.55	$17.24	$22.81	$28.38
Bay City Electric Light Department	2.17	--	5.34	10.09	17.27	24.93	33.30
Bessemer Light Utility	3.00	--	7.37	13.93	23.74	34.22	45.16
Charlevoix Municipal Utilities	1.81	24	5.07	9.92	17.90	25.72	32.97
Chelsea Electric and Water Department	1.00	--	4.49	9.72	16.69	24.37	33.09
Coldwater Board of Public Utilities	2.50	--	6.74	13.18	23.43	33.87	44.61
Consumers Power Co.	2.50	--	5.94	11.10	18.82	26.89	35.68
Detroit Edison Co.	2.50	--	6.53	12.57	18.38	29.20	40.01
Dowagic Board of Electric Facilities	3.00	30	5.45	10.70	19.45	26.85	33.35
Eaton Rapids, City of	3.08	24	6.69	12.00	20.53	28.74	36.78
Edison Sault Electric Company	1.60	20	4.29	8.27	13.89	19.52	25.14
Escanaba	1.00	--	6.48	12.78	23.28	33.78	44.28
Gladstone, City of	1.59	10	9.13	16.70	22.93	32.99	45.62
Grand Haven Board of Light and Power	2.56	--	5.67	10.34	18.11	25.89	33.66
Hillsdale Board of Public Works	2.50	--	6.90	13.50	24.00	34.70	45.70
Holland Board of Public Works	2.50	--	5.85	10.88	16.01	23.09	31.45
Indiana and Michigan Electric Company	3.50	--	6.66	11.39	17.96	25.40	33.29
Lake Superior District Power Company	3.30	--	6.95	12.42	19.59	27.59	36.71
L'Anse, Village of	2.00	--	6.93	13.58	22.67	31.25	39.83
Lansing Board of Water & Light [a]	1.80	--	4.99	9.77	17.16	24.54	32.52
Lowell Light & Power	1.70	--	6.54	13.80	25.89	37.98	50.08
Marquette Board of Light and Power	2.25	32	6.15	11.92	21.53	31.15	40.76
Marshall City Water & Electric Works	2.50	--	6.45	12.37	23.48	32.85	42.71
Michigan Power Co.	2.25	--	7.55	13.41	22.34	31.29	40.22
Negaunee, City of	2.00	18	6.38	12.68	21.50	30.33	39.15

TABLE XIX-17. TYPICAL NET MONTHLY ELECTRIC BILLS FOR RESIDENTIAL SERVICE IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANUARY 1978 (cont.)

	Minimum bills		100	250	500	750	1000
	Amount	Kwh inc.	kwh	kwh	kwh	kwh	kwh
Niles Board of Public Works	$4.16	47	$7.17	$13.60	$22.37	$30.15	$37.92
Norway Electric Light Department	.65	10	3.60	8.10	10.60	16.10	23.60
Paw Paw, Village of	3.00	48	5.09	11.02	20.91	30.80	40.69
Petoskey Municipal Light Plant	2.00	32	4.95	10.13	18.10	26.23	34.45
Portland Electric Department	2.49	24	5.61	10.23	17.79	24.44	30.50
Saint Louis Light Plant	2.50	--	6.70	13.00	21.63	31.00	41.50
South Haven Board of Public Works	2.95	31	6.92	13.32	19.15	27.63	36.19
Sturgis, City of	4.50	30	7.36	13.22	22.98	32.00	40.52
Traverse City Power Department	2.07	--	5.84	11.51	19.95	28.78	38.21
Upper Peninsula Power Company	3.35	--	7.94	14.83	22.05	31.03	41.50
Wakefield, City of	1.50	--	4.87	9.93	18.35	26.78	35.20
Wisconsin Public Serv. Corporation	3.00	--	6.28	11.19	19.40	26.38	32.57
Wyandotte Department of Municipal Service[a]	2.50	15	6.37	13.14	24.41	35.69	46.96
Zeeland Board of Public Works	2.25	--	6.01	11.65	19.30	27.65	37.05

SOURCE: Federal Power Commission, Typical Electric Bills, 1977 (Washington, D.C.: 1978), Table 9.

a. Lamp replacement service included.

TABLE XIX-18. AVERAGE ELECTRICITY USED BY RESIDENTIAL CONSUMERS IN MICHIGAN CITIES OF 50,000 OR MORE INHABITANTS: 1972 AND 1977

City	Kwh per year 1972	1977	City	Kwh per year 1972	1977
Ann Arbor	6,165	6,165	Redford Twp.	5,094	n.a.
Dearborn	5,347	5,347	Roseville	6,858	6,091
Dearborn Hgts.	5,094	6,162	Royal Oak	7,942	5,988
Detroit	5,094	5,508	Saginaw	5,448	7,012
Flint	5,583	7,240	St. Clair Shores	6,858	6,593
Grand Rapids	4,679	6,319	Southfield	7,942	9,870
Kalamazoo	5,639	6,954	Sterling Hgts.	6,858	7,001
Lansing[a]	6,789	6,443	Taylor	5,094	5,916
Lincoln Park	5,094	5,157	Warren	6,858	6,328
Livonia	6,980	7,821	Westland	5,094	6,344
Pontiac	5,029	4,816	Wyoming	5,018	6,319

SOURCE: Federal Power Commission, Typical Electric Bills, 1978 (Washington, D.C.: annually), Table 12.
a. Publicly owned utility.
n.a.: not available.

TABLE XIX-19. INSTALLED ELECTRIC GENERATING CAPACITY OF ELECTRIC UTILITIES AND INDUSTRIAL PLANTS IN MICHIGAN, BY TYPE OF PRIME MOVER: 31 DECEMBER 1964-1978

(In thousands of kilowatts)

Year	Electric utilities Fuel	Hydro	Industrial plants	Total
1964	7,769	369	1,136	9,274
1965	7,922	356	1,068	9,346
1966	8,422	356	1,050	9,827
1967	8,930	356	1,057	10,343
1968	9,766	356	1,050	11,173
1969	10,480	351	1,032	11,862
1970	10,830	348	994	12,171
1971	11,842	345	1,014	13,201
1972	12,562	344	1,007	13,913
1973	13,969	1,993[a]	1,023	16,985
1974	16,605	2,322[a]	1,019	19,946
1975(P)	16,629	2,321[a]	1,009	19,959
1976(P)	16,714	2,321[a]	992	20,027
1977(P)	17,304	2,322[a]	987	20,614
1978(P)	n.a.	2,322[a]	n.a.	21,007

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1964 through 1978 (Washington, D.C.: annually), Table 918 (1974), and Federal Power Commission, special release (1976, 1977, and 1978).
a. Includes the pump storage facility at Ludington where water is pumped up into a reservoir at night and released to generate electricity to meet peak load requirements during the day.
P: preliminary.
n.a.: not available.

TABLE XIX-20. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY HYDRO AND STEAM PLANTS IN MICHIGAN: 1947-1978

(Thousands of kilowatt-hours)

Year	Hydro	Total fuel	Total
1947	1,515,260	10,286,151	11,801,411
1948	1,317,595	11,439,182	12,756,777
1949	1,369,281	11,828,945	13,198,226
1950	1,657,676	13,657,865	15,315,541
1951	1,887,163	14,748,717	16,635,880
1952	1,742,813	15,514,789	17,257,602
1953	1,703,471	18,030,717	19,734,188
1954	1,794,827	17,741,426	19,536,253
1955	1,570,501	20,794,422	22,364,923
1956	1,657,054	21,977,346	23,634,400
1957	1,552,989	23,279,559	24,832,548
1958	1,476,445	22,566,773	24,043,218
1959	1,727,293	24,829,808	26,557,101
1960	1,817,341	25,855,001	27,672,342
1961	1,635,689	26,676,370	28,312,059
1962	1,574,044	30,500,999	32,075,043
1963	1,246,431	33,705,179	34,951,610
1964	1,415,103	36,580,829	37,995,932
1965	1,667,243	40,109,476	41,776,719
1966	1,670,859	43,761,330	45,432,189
1967	1,799,231	45,833,170	47,632,901
1968	1,739,363	50,362,597	52,101,960
1969	1,732,982	53,551,867	55,284,849
1970	1,580,343	54,700,398	56,280,741
1971	1,620,622	57,459,327	59,079,949
1972	1,643,545	59,454,562	61,098,107
1973	889,714	61,826,056	62,715,770
1974	1,050,699	60,401,284	61,451,983
1975 (P)	989,369	67,168,344	68,157,713
1976 (P)	926,133	68,136,377	60,062,510
1977 (P)	804,000	67,954,000	68,756,000
1978 (P)	949,912	73,584,426	74,534,338

SOURCE: Federal Power Commission, special release.

P: preliminary.

TABLE XIX-21. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY STEAM IN MICHIGAN, BY KIND OF FUEL: 1947-1978

(Thousands of kilowatt-hours)

Year	Coal	Oil[a]	Natural gas	Nuclear
1947	10,091,869	193,899	383	—
1948	11,166,179	271,284	1,791	—
1949	11,545,109	278,392	5,444	—
1950	13,388,001	262,428	7,436	—
1951	14,468,102	266,522	14,093	—
1952	15,239,622	246,627	28,540	—
1953	17,737,571	255,075	38,071	—
1954	17,456,532	238,257	46,637	—
1955	20,478,674	279,575	36,173	—
1956	21,639,845	294,509	42,992	—
1957	22,925,155	291,124	63,280	—
1958	22,190,144	276,423	100,206	—
1959	24,429,812	241,504	158,492	—
1960	25,143,928	224,771	486,302	—
1961	25,689,641	237,540	749,189	—
1962	30,019,132	241,356	240,482	29
1963	33,171,041	224,283	187,504	122,351
1964	35,980,122	186,144	222,085	192,478
1965	39,472,433	194,419	262,017	180,607
1966	42,880,297	305,813	232,561	342,659
1967	44,495,793	460,034	375,330	502,013
1968	48,938,596	480,930	517,470	425,601
1969	51,346,646	603,897	1,200,274	401,050
1970	46,578,776	2,553,271	5,193,659	374,692
1971	47,187,538	4,277,233	5,607,036	387,520
1972	47,953,045	4,716,918	4,659,418	2,125,181
1973	48,752,756	6,326,295	3,767,128	2,979,877
1974	48,393,892	7,433,244	4,158,308	415,840
1975 (P)	48,180,133	8,336,771	3,475,317	7,176,123
1976 (P)	46,813,611	8,351,456	3,070,759	9,900,551
1977 (P)	47,624,000	8,365,000	1,731,000	10,231,000
1978 (P)	47,613,638	10,892,005	1,974,623	13,104,159

SOURCE: Federal Power Commission, special release.

a. Includes distillate and residual and crude burned as residual.

P. Preliminary.

TABLE XIX-22. FOSSIL FUELS CONSUMED IN THE PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES IN MICHIGAN, BY KIND OF FUEL: 1947-1978

Year	Coal[a]	Oil[b]	Gas[c]
1947	5,489,879	415,019	4,942
1948	6,094,489	604,402	15,527
1949	6,006,367	548,766	57,035
1950	6,690,531	511,992	73,200
1951	7,137,483	520,676	141,349
1952	7,414,756	474,303	285,940
1953	8,418,570	496,156	366,404
1954	7,946,133	459,799	425,562
1955	9,251,115	537,571	332,415
1956	9,631,375	567,966	413,409
1957	10,035,173	556,013	591,108
1958	9,231,328	528,549	1,073,800
1959	10,112,980	475,034	1,642,129
1960	10,299,737	439,867	5,208,898
1961	10,282,542	459,840	8,178,632
1962	12,003,368	451,740	2,601,428
1963	13,267,743	423,334	2,032,471
1964	14,441,995	369,453	2,384,103
1965	16,122,593	383,828	2,988,767
1966	18,148,464	733,126	2,494,984
1967	19,014,991	1,136,946	4,718,078
1968	20,820,484	1,175,483	6,842,091
1969	21,952,162	1,436,248	15,495,248
1970	20,123,939	5,479,030	64,406,787
1971	20,507,741	8,746,639	69,808,590
1972	20,420,769	9,641,758	58,899,385
1973	20,507,873	12,040,590	48,016,628
1974	20,755,361	13,713,367	56,172,035
1975 (P)	20,913,429	15,674,055	56,710,314
1976 (P)	20,369,131	15,573,247	53,510,229
1977 (P)	21,095,000	15,760,000	32,133,000
1978 (P)	21,494,695	20,423,409	36,333,647

SOURCE: Federal Power Commission, special release.

a. Short tons.

b. Barrels of 42 gallons. Includes distillate and residual and crude burned as residual.

c. Thousands of cubic feet.

P: preliminary.

TABLE XIX-23. ELECTRIC UTILITY INDUSTRY SALES TO ULTIMATE CONSUMERS IN MICHIGAN: 1961-1978
(Millions of kilowatt hours)

Year	Residential	Commercial and industrial		Street and highway lighting	Other public authorities	Inter-departmental	Total
		Small light and power	Large light and power				
1961	9,213	5,433	11,915	229	320	40	27,150
1962	9,588	5,851	13,495	244	370	37	29,585
1963	9,907	6,268	15,064	252	431	36	31,958
1964	10,526	6,774	16,531	268	458	42	34,599
1965	11,294	7,232	18,608	279	473	48	37,934
1966	12,285	7,888	20,727	294	502	50	41,746
1967	13,188	8,364	21,143	431	954	52	44,131
1968	14,344	9,055	23,189	459	997	53	48,097
1969	15,629	9,816	24,858	476	1,044	52	51,875
1970	16,878	10,505	24,277	497	980	61	53,198
1971	17,896	11,060	26,279	500	998	68	56,801
1972	19,054	11,907	28,567	527	1,033	78	61,166
1973	20,164	12,965	31,460	542	1,067	81	66,279
1974	20,218	12,648	29,036	584	1,115	68	63,669
1975	20,807	12,949	27,057	611	1,143	78	62,645
1976	21,345	13,465	31,067	613	1,197	85	67,772
1977	21,774	13,924	32,254	612	1,180	101	69,845
1978	21,964	14,112	33,182	610	1,213	99	71,180

SOURCES: Edison Electric Institute, Statistical Yearbook of the Electric Utility Industry, 1961 through 1975 (New York, N.Y.: annually), Table 22-S (1975 data); and Edison Electric Institute, special release (1976, 1977, and 1978 data).

TABLE XIX-24. ANNUAL ELECTRIC BILLS FOR ELECTRICAL POWER CONSUMPTION FOR THE ALL-ELECTRIC HOME IN MICHIGAN UTILITY SERVICE AREAS, CITIES HAVING 50,000 INHABITANTS OR MORE: BASED ON RATES EFFECTIVE 1 JANUARY 1978

Company	15,000 kwh	20,000 kwh	25,000 kwh	30,000 kwh
	Annual bills (dollars)			
Consumers Power Co.	525	694	864	1,036
Detroit Edison Co.	568	748	927	1,116
Lansing Board of Water and Light	474	625	776	927
	Average charge (cents per kwh)			
Consumers Power Co.	3.50	3.47	3.46	3.45
Detroit Edison Co.	3.79	3.74	3.71	3.72
Lansing Board of Water and Light	3.16	3.13	3.10	3.09

SOURCE: U.S. Department of Energy, All-Electric Homes, Annual Bills: January 1, 1978 (Washington D.C.: 1978).

TABLE XIX-25. AVERAGE HOME HEATING FUEL USE AND COST IN MICHIGAN SINGLE FAMILY DWELLING UNITS: 1977

Fuel	BTU content per unit	Amount used per home per year	Price per unit	Cost per home per year
Fuel oil (gallons)	138,800	1,441	$ .4681	$ 674.50
Natural gas (thousands of cubic feet)	1,021,000	195.9	1.98	387.90
Electricity (kwh)	3,412	38,101	.0365	1,390.70
Propane or butane (gallons)	95,500	2,095	.41	859.00
Coal (tons)	23,650,000	8.46	25.00	211.50
Average, weighted by homes using the various fuels				485.00

SOURCE: Michigan Energy Administration, special release.

TABLE XIX-26. MICHIGAN ELECTRIC UTILITY STATISTICS: 1978

Company	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (kw)	Total assets[a] ($000)
Privately owned utilities					
Alpena Power Company	13,895	10,716	286,076	56,690	8,331
Consumers Power Company	1,272,338	1,016,740	25,523,508	4,587,800	3,184,457
Detroit Edison Company	1,714,893	1,462,242	35,626,182	7,312,000	4,061,833
Edison Sault Electric Co	15,200	8,736	340,223	80,772	17,491
Indiana & Michigan Electric[b]	76,765	54,464	1,786,477	334,804	936,161
Lake Superior Dist. Pwr.[b]	10,426	4,370	103,070	24,500	5,240
Michigan Power Company	27,671	19,417	543,900	112,277	48,785
Upper Peninsula Power Company	58,108	28,142	638,015	156,073	59,858
Wisconsin Elec. Power Co.[b]	21,368	15,140	518,260	91,018	31,589
Wisconsin Public Service Corporation[b]	7,447	4,504	143,127	23,820	5,622
Total	3,218,111	2,624,471	65,508,838	12,779,754	8,359,367
Rural electric cooperatives					
Alger-Delta Co-op	6,521	2,113	37,450	9,287	4,257
Cherryland R.E.C.	13,989	5,839	104,767	24,777	8,201
Cloverland Elec. Co-op	11,596	3,462	88,772	20,600	11,572
Fruit Belt Elec. Co-op	18,204	8,513	231,607	57,111	12,146
O & A Electric Co-op	19,677	7,499	123,158	28,660	10,101
Oceana Electric Co-op	7,447	2,854	49,084	10,170	2,394
Ontonagon County REA	3,104	1,052	16,227	4,028	1,784
Presque Isle	21,714	7,451	118,567	28,204	13,036
Southeastern Mich. REA	3,419	1,813	34,282	8,122	2,898
Thumb Electric Co-op	8,747	4,620	81,447	21,998	9,018
Top O'Michigan REA	30,531	11,425	192,460	49,178	21,873
Tri-county Electric Co-op	15,002	7,952	127,639	29,793	7,972
Western Mich. Electric Co-op	8,899	2,577	37,443	10,284	3,909
Total	168,850	67,170	1,242,903	302,212	109,161
Municipal utilities					
Baraga Munic. Water & Light	991		2,800	n.a.	
Bay City utilities dept.	12,836		136,599	34,244	
Bessemer light utility	849		10,062	15,500	
Charlevoix Municipal utilities[c]	2,590		(d)	6,000	
Chelsea Electric & Water dept.[c]	1,480		(d)	3,958	

TABLE XIX-26. MICHIGAN ELECTRIC UTILITY STATISTICS: 1978 (cont.)

Company	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (kw)	Total assets[a] ($000)
		Municipal utilities			
Clinton Board of Public Works[c]	800		10,400	n.a.	
Coldwater Board of Public Utilities	5,111		102,741	20,600	
Croswell Municipal Light and Power	942		20,108	4,700	
Crystal Falls Electrical Dept.	1,320		9,750	2,459	
Daggett Electric Dept.	366		n.a.	n.a.	
Detroit Public Lighting Dept.	--		628,273	115,000	
Dowagic Dept. of Public Services	2,420		42,211	7,500	
Escanaba Municipal Elec. Utility	7,551		95,148	18,816	
Gladstone Light Utility	2,010		n.a.	4,900	
Grand Haven Board of Light and Power	7,939		134,375	30,500	
Harbor Springs Elect'l Dist. Department	1,900		13,562	3,459	
Hart Hydro Electric Dept.	1,200		17,500	4,900	
Hillsdale Bd. of Public Utilities	4,943		87,038	17,200	
Holland Board of Public Works	13,130		219,012	49,100	
L'Anse Electric Utility	1,067		9,065	1,815	
Lansing Board of Water & Light	75,586		2,173,233	369,500	
Lowell Light & Power Plant[c]	1,666		23,692	5,000	
Marquette Board of Light and Power	12,788		198,340	43,500	
Marshall City Water and Electric Works	3,565		51,653	11,515	
Negaunee Electric Dept.[c]	2,113		17,719	4,300	
Newberry Water & Light Board[c]	1,347		15,661	3,600	
Niles Board of Public Works	6,582		92,811	22,140	
Norway Light Dept.	1,701		20,717	4,100	
Petoskey Electric Dept.	2,786		46,421	10,335	
Portland Electric Dept.	1,695		18,167	3,883	
St. Louis Muncipal Electric	1,418		(d)	3,000	
Sebewaing Light and Water Plant	900		n.a.	n.a.	
South Haven Board of Public Utilities	5,938		90,406	18,900	
Stephenson Utilities Dept.[c]	423		4,270	1,056	
Sturgis Municipal Electric Plant	5,311		118,882	27,970	

TABLE XIX-26. MICHIGAN ELECTRIC UTILITY STATISTICS: 1978 (cont.)

Company	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (kw)	Total assets[a] ($000)
Municipal utilities (cont.)					
Traverse City Light and Power Department	6,569		128,398	25,700	
Union City Electric Dept.	999		4,940	1,450	
Wakefield Electric Light Department	1,119		10,703	2,327	
Wyandotte Munic. Service Commission	14,388		171,805	36,600	
Zeeland Board of Public Works	2,188		68,952	14,450	

SOURCE: Michigan Public Service Commission, special release.

a. Net utility plant.

b. These utilities operate in more than one state, and the peak demand and total assets for Michigan are not given.

c. Data pertain to 1976.

d. Purchased power only.

n.a.: not available.

TABLE XIX-27. DEVELOPED AND UNDEVELOPED HYDROELECTRIC POWER RESOURCES IN MICHIGAN, BY MAJOR DRAINAGE AND RIVER BASIN: 1 JANUARY 1976

Plant or site	Owner	River	Developed		Undeveloped	
			Installed capacity[a] (kw)	Average annual generation (000 kwh)	Installed capacity[a] (kw)	Average annual generation (000 kwh)
Lake Erie Drainage						
Maumee River Basin						
Rawsonville	Ypsilanti Joint Rec	Huron	1,920	8,500		
Lake Huron Drainage						
Saginaw River Basin						
St. Louis	City of St. Louis	Pine	360	700		
Sanford	Wolverine Pwr Co	Tittabawassee	3,300	7,000		
Edenville	Wolverine Pwr Co	Tittabawassee	4,800	10,000		
Smallwood	Wolverine Pwr Co	Tittabawassee	1,200	2,600		
Secord	Wolverine Pwr Co	Tittabawassee	1,200	3,000		
Au Sable River Basin						
Foote	Consumers Pwr Co	Au Sable	9,000	2[illegible],200		
Cooke	Consumers Pwr Co	Au Sable	9,000	26,300		
Five Channels	Consumers Pwr Co	Au Sable	6,000	24,700		
Loud	Consumers Pwr Co	Au Sable	4,000	18,000	2,000	7,000
Thompso		Au Sable			12,000	36,500
Alcona	Consumers Pwr Co	Au Sable	8,000	25,700		
Upper Flat Rock		Au Sable			25,000	68,000
Mio	Consumers Pwr Co	Au Sable	5,000	15,000		
Baker Bridge		Au Sable			5,500	13,300
Eaton		Au Sable			5,000	10,700
Minor River Basin						
Ninth Street	Alpena Pwr Co	Thunder Bay	1,200	6,000		
Four Mile Dam	Alpena Pwr Co	Thunder Bay	1,800	10,000		
Norway Point	Alpena Pwr Co	Thunder Bay	4,000	16,000		
Hillman	Alpena Pwr Co	Thunder Bay	250	1,000		
Kleber	Northern Mich El Coop	Black	1,200	4,000		
Tower Hydro	Northern Mich El Coop	Black	560	2,100		

TABLE XIX-28. NUMBER OF NATURAL GAS DISTRIBUTION UTILITY CUSTOMERS IN MICHIGAN, BY CLASS OF SERVICE: 1962-1977

(In thousands)

Year	Residential	Commercial	Industrial	Other	Total
1962	1,449.5	119.4	7.3	(L)	1,542.0
1963	1,486.3	123.2	7.4	(L)	1,616.9
1964	1,535.2	128.6	7.8	(L)	1,671.6
1965	1,590.5	134.2	8.2	(L)	1,732.9
1966	1,653.3	139.5	8.8	(L)	1,801.6
1967	1,707.1	143.9	9.3	(L)	1,860.3
1968	1,758.1	148.6	9.7	(L)	1,916.4
1969	1,810.3	153.7	9.9	(L)	1,973.9
1970	1,850.9	157.2	10.4	(L)	2,018.5
1971	1,907.0	161.5	10.0	(L)	2,079.2
1972	1,946.7	168.7	10.6	(L)	2,126.0
1973	1,984.4	174.6	10.9	(L)	2,169.9
1974	2,023.3	178.1	10.8	(L)	2,212.2
1975	2,048.7	175.4	10.4	(L)	2,234.5
1976	2,069.7	165.3	9.4	(L)	2,244.4
1977	2,100.7	159.3	9.0	(L)	2,269.1

SOURCE: American Gas Association, Gas Facts, 1961 through 1977 (Arlington, Va.: annually), Table 58 (1977).

(L): Less than 50 customers.

TABLE XIX-29. TOTAL GAS REVENUES OF NATURAL GAS DISTRIBUTION UTILITIES IN MICHIGAN, BY CLASS OF SERVICE: 1962-1977

(In millions of dollars)

Year	Residential	Commercial	Industrial	Other	Total
1962	232	55	71	1	359
1963	242	60	76	(L)	377
1964	250	64	86	(L)	399
1965	267	71	96	(L)	434
1966	281	79	112	(L)	480
1967	298	88	119	(L)	505
1968	308	94	128	(L)	531
1969	328	104	156	3	591
1970	350	115	178	8	651
1971	362	129	205	7	703
1972	404	158	231	6	799
1973	394	169	245	5	813
1974	480	228	327	8	1,044
1975	550	303	404	12	1,269
1976	690	401	519	2	1,612
1977	784	423	530	8	1,746

SOURCE: American Gas Association, Gas Facts, 1961 through 1977 (Arlington, Va.: annually), Table 79 (1977).
(L): Less than $500,000.

TABLE XIX-30. VOLUME OF NATURAL GAS SALES FOR CONSUMPTION BY MICHIGAN UTILITIES: 1978

(Millions of cubic feet)

Utility	Residential			Commercial			Industrial
	Nonheat	Heat	Total	Nonheat	Heat	Total	total
Battle Creek Gas Company	152,146	3,749,286	3,901,432	149,310	1,803,491	1,952,801	2,948,187
Citizens Gas Fuel Company	36,890	1,278,759	1,315,649	42,327	614,564	656,891	1,126,149
Consumers Power Company	2,235,427	165,644,252	167,879,678[a]	2,649,829	62,680,939	65,376,613[a]	98,642,173
Lake Superior District Power	727	382,680	383,407	78,529	231,117	309,646	137,594
Michigan Consolidated Gas Company	2,871,172	167,148,203	170,019,375	5,515,810	111,335,616	116,851,426	116,725,046
Michigan Gas Utilities Co.	186,854	13,821,095	14,007,949	161,094	5,888,721	6,049,815	15,428,676
Michigan Power Company	45,244	8,246,769	8,292,013	104,579	5,146,320	5,250,899	9,883,984
Peninsular Gas Company	7,204	419,592	426,795[a]	2,742	225,580	228,323[a]	16,583
Southeastern Mich. Gas Company	46,353	8,599,889	8,646,242	149,326	3,707,071	3,856,397	2,646,529
Wisconsin Public Service Co.	138,195	5,471,402	5,609,597	42,761	780,398	823,159	5,203,988
Total	5,720,212	374,761,927	380,482,137	8,896,307	192,413,817	201,355,970	252,758,909

SOURCE: Michigan Public Service Commission, special release.

a. Items do not sum to total because of rounding.

TABLE XIX-27. DEVELOPED AND UNDEVELOPED HYDROELECTRIC POWER RESOURCES IN MICHIGAN, BY MAJOR DRAINAGE AND RIVER BASIN: 1 JANUARY 1976 (cont.)

Plant or site	Owner	River	Developed: Installed capacity[a] (kw)	Developed: Average annual generation (000 kwh)	Undeveloped: Installed capacity[a] (kw)	Undeveloped: Average annual generation (000 kwh)
		Lake Huron Drainage (cont.)				
St. Marys River Basin						
Edison, Sault	Edison Sault El Co	St. Marys	41,295	297,200		
St. Marys Falls	Corps of Engineers	St. Marys	18,400	161,200		
		Lake Michigan Drainage				
Boardman River Basin						
Brown Bridge	Traverse City L P Dpt	Boardman	650	2,300		
Manistee River Basin						
Anderson		Manistee			10,000	25,000
High Bridge		Manistee			6,800	16,300
Tippy	Consumers Pwr Co	Manistee	20,000	55,658		
Wilson		Pine			8,200	20,000
Lower Sibley		Manistee			17,000	41,000
Hodenpyl	Consumers Pwr Co	Manistee	18,000	46,022		
Sherman		Manistee			16,000	38,000
Manton		Manistee			9,500	22,700
Walton		Manistee			5,600	13,300
Sands		Manistee			10,000	23,500
Dutch John		Manistee			5,000	12,000
Minor River Basins						
Hart	Hart Hydro El Sys	Pentwater	300	1,000		
Bridgeton		Muskegon			6,000	25,700
Bacon		Muskegon			15,000	36,000
Croton	Consumers Pwr Co	Muskegon	9,000	37,000		
Hardy	Consumers Pwr Co	Muskegon	30,000	84,900		
Rogers	Consumers Pwr Co	Muskegon	6,750	25,900		

TABLE XIX-27. DEVELOPED AND UNDEVELOPED HYDROELECTRIC POWER RESOURCES IN MICHIGAN, BY MAJOR DRAINAGE AND RIVER BASIN: 1 JANUARY 1976 (cont.)

Plant or site	Owner	River	Developed: Installed capacity[a] (kw)	Developed: Average annual generation (000 kwh)	Undeveloped: Installed capacity[a] (kw)	Undeveloped: Average annual generation (000 kwh)
		Lake Michigan Drainage (cont.)				
Grand River Basin						
Grand Rapids		Grand			6,700	30,000
Middleville	Midstate Service Co	Thornapple	350	1,500		
Irving	Midstate Service Co	Thornapple	600	2,300		
Webber	Consumers Pwr Co	Grand	3,250	9,100		
Portland Muncpl	Portland El Dept	Grand	375	2,400		
North Lansing	Lansing Bd of Wtr & Lt	Grand	200	1,100		
Moores Park	Lansing Bd of Wtr & Lt	Grand	1,000	2,600		
Eaton Rapids	Miller Dairy Farm	Spring	768	1,500		
Kalamazoo River Basin						
Calkins (Allegan)	Consumers Pwr Co	Kalamazoo	2,550	8,000		
Plainwell	Weyerhaeuser Co	Kalamazoo	200	700		
Marshall	City of Marshall	Kalamazoo	319	1,500		
St. Joseph River Basin						
Watervliet	Watervliet Paper Co	Paw Paw	300	1,300		
Paw Paw	Vlg of Paw Paw	W Br Paw Paw	312	800		
Kings Landing		St. Joseph			7,200	29,400
Berrien Springs	Ind and Mich Elec Co	St. Joseph	7,200	31,000		
Buchanan	Ind and Mich Elec Co	St. Joseph	4,104	14,000		
Niles	City of Niles	Dowagiac Cr	460	3,300		
Niles	French Paper Co	St. Joseph	1,300	5,500		
Mottville	Mich Pwr Co	St. Joseph	1,680	7,100		
Constantine	Mich Pwr Co	St. Joseph	1,200	5,500		
Star Mill	Star Milling & El Co	Fawn	250	700		
Portage (3 Rivers)	Mich Pwr Co	Portage	168	700		
Sturgis	City of Sturgis	St. Joseph	880	4,100		
Riley	Union Cty Vlg of	St. Joseph	418	1,300		

TABLE XIX-27. DEVELOPED AND UNDEVELOPED HYDROELECTRIC POWER RESOURCES IN MICHIGAN, BY MAJOR DRAINAGE AND RIVER BASIN: 1 JANUARY 1976 (cont.)

Plant or site	Owner	River	Developed		Undeveloped	
			Installed capacity[a] (kw)	Average annual generation (000 kwh)	Installed capacity[a] (kw)	Average annual generation (000 kwh)
		Lake Michigan Drainage (cont.)				
Menominee River Basin						
Menominee	Scott Paper Co	Menominee	916	6,900		
Chappie Rapids		Menominee			5,200	24,000
Grand Rapids	Wis Pub Serv Corp	Menominee	7,020	36,500		
White Rapids	Wis Elec Pwr Co	Menominee	8,000	40,040		
Chalk Hill	Wis Elec Pwr Co	Menominee	7,800	36,700		
Pemene Falls		Menominee			10,000	40,000
Pemene Dam		Menominee			7,000	33,000
Sturgeon Falls	City of Norway	Menominee	3,500	22,000	1,500	9,000
Sturgeon River	Wis Elec Pwr Co	Sturgeon	800	4,000		
Sand Portage		Menominee			6,800	24,500
Quinnesec Falls	Wis Elec Pwr Co	Menominee	3,530	4,000		
Big Quinnesec Falls	Wis Elec Pwr Co	Menominee	16,000	104,875	8,000	32,000
Kingsford	Wis Elec Pwr Co	Menominee	7,200	31,200		
Twin Falls	Wis Elec Pwr Co	Menominee	6,144	32,700		
Michigamme Falls	Wis Elec Pwr Co	Michigamme	9,600	42,000		
Peavy Falls	Wis Elec Pwr Co	Michigamme	12,000	63,860		
Hemlock Falls	Wis Elec Pwr Co	Michigamme	2,800	13,800		
Way	Wis Elec Pwr Co	Michigamme	1,800	10,100		
Brule Island	Wis Elec Pwr Co	Brule	5,335	15,100		
Lower Paint	Wis Elec Pwr Co	Paint	100	750		
Paint River	Crystal Falls Lt Wtr Dept	Paint	900	3,000		
Escanaba River Basin						
Escanaba No 1	Mead Corp	Escanaba	1,950	6,700		
Escanaba No 3	Mead Corp	Escanaba	2,500	9,900		
Escanaba No 4	Mead Corp	Escanaba	4,740	14,000		
Escanaba	Cleveland Cliffs Iron Co	Escanaba	2,000	5,000		

TABLE XIX-27. DEVELOPED AND UNDEVELOPED HYDROELECTRIC POWER RESOURCES IN MICHIGAN, BY MAJOR DRAINAGE AND RIVER BASIN: 1 JANUARY 1976 (cont.)

Plant or site	Owner	River	Developed		Undeveloped	
			Installed capacity[a] (kw)	Average annual generation (000 kwh)	Installed capacity[a] (kw)	Average annual generation (000 kwh)
		Lake Superior Drainage				
Minor River Basins						
Tahquamenon Falls		Tahquamenon			4,500	30,000
Au Train	Clev Cliffs Iron Co	Au Train	896	5,000		
Carp	Clev Cliffs Iron Co	Carp	4,480	19,100		
F J Russell	City of Marquette	Dead	700	3,900		
Development No. 2	City of Marquette	Dead	3,200	12,000		
McClure	Clev Cliffs Iron Co	Dead	8,000	44,200		
Hoist	Clev Cliffs Iron Co	Dead	4,400	14,800		
Sturgeon River Basin						
Prickett	Upper Pen Pwr Co	Sturgeon	2,200	9,400		
Lower Plant		Sturgeon			16,300	19,100
Big Falls		Sturgeon			17,600	23,800
Tibbets Falls		Sturgeon			12,000	12,200
Ontonagon River Basin						
Grand Rapids		Ontonagon			4,800	32,000
Forks		Ontonagon			4,200	28,000
Victoria	Upper Pen Pwr Co	W Br Ontonagon	12,000	64,000		
Hooper		W Br Ontonagon			6,000	23,000
Minor River Basin						
Superior Falls	Lake Sup Dist Pwr Co	Montreal	1,320	8,800		
Saxon Falls	Lake Sup Dist Pwr Co	Montreal	1,250	9,400		

SOURCE: Federal Power Commission, Hydroelectric Power Resources of the United States, Developed and Undeveloped, January 1, 1976 (Washington, D.C.: 1976), Table 2.

a. Capacities listed include main generating units only. Several plants also have auxilliary generating capacity.

TABLE XIX-31. NUMBER OF NATURAL GAS CUSTOMERS OF MICHIGAN UTILITIES: 1978 AVERAGE

Utility	Residential			Commercial			Industrial total
	Nonheat	Heat	Total	Nonheat	Heat	Total	
Battle Creek Gas Company	4,167	22,375	26,543[a]	260	1,835	2,095	49
Citizens Gas Fuel Company	1,001	7,056	8,057	65	720	785	26
Consumers Power Company	56,715	906,178	962,893	1,752	58,231	59,993[a]	6,594
Lake Superior District Power	20	2,633	2,653	36	343	379	9
Mich. Consolidated Gas Company	61,058	884,659	945,717	6,409	70,478	76,887	1,091
Michigan Gas Utilities Co.	4,789	81,181	85,970	429	7,504	7,933	614
Michigan Power Company	1,510	52,211	53,721	247	5,903	6,150	401
Peninsular Gas Company	294	2,327	2,621	19	252	271	1
Southeastern Mich. Gas Company	1,519	51,483	53,002	164	4,491	4,655	89
Wisconsin Public Service Co.	479	3,535	4,014	28	232	260	94
Total	131,552	2,013,638	2,145,191	9,409	149,989	159,408	8,968

SOURCE: Michigan Public Service Commission, special release.

a. Items do not sum to total because of rounding.

TABLE XIX-32. QUANTITY OF SELECTED, PURCHASED FUELS USED FOR HEAT AND POWER IN MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1971 AND 1974-1976

Fuel	1971	1974	1975	1976
Distillate fuel oil[a]				
Michigan	1,946	2,244	2,242	2,680
United States	104,941	124,357	105,296	112,379
Percentage[b]	1.9	1.8	2.1	2.4
Residual fuel oil[a]				
Michigan	2,574	3,362	2,491	4,364
United States	140,726	160,765	177,407	207,620
Percentage[b]	1.8	2.1	1.4	2.1
Coal[c]				
Michigan	6,031	4,410	3,883	4,507
United States	61,393	47,790	44,623	47,308
Percentage[b]	9.8	9.2	8.7	9.5
Coke[d]				
Michigan	198	279	235	274
United States	13,743	14,690	12,659	14,938
Percentage[b]	1.4	1.9	1.9	1.8
Natural gas[e]				
Michigan	231,000	242,000	223,000	251,100
United States	6,454,400	6,340,100	5,806,500	5,924,600
Percentage[b]	3.6	3.8	3.8	4.2

SOURCES: Adapted from Bureau of the Census, U.S. Census of Manufactures, 1972, Special Report Series, Fuels and Electric Energy Consumed (Washington, D.C.: 1973), MC72(SR)-6, Table 4; Bureau of the Census, Annual Survey of Manufactures, 1976, Fuels and Electric Energy Consumed (Washington, D.C.: 1978), M76(AS)-4P, Table 4; and similar documents for 1974 and 1975.

a. Distillate and residual, thousands of barrels.

b. Michigan as a percentage of United States.

c. Bituminum, lignite, and anthracite, in thousands of tons.

d. Thousands of tons. Includes breeze.

e. Natural, manufactured, and mixed, in thousands of cubic feet.

TABLE XIX-33. KILOWATT-HOURS EQUIVALENT AND TOTAL COST OF PURCHASED FUELS FOR HEAT AND POWER IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES: 1971-1976

Year	Kilowatt-hours equivalent[a] (billions)		Total cost ($ millions)	
	Michigan	United States	Michigan	United States
1971	149.3	3,332.4	300.4	5,360.9
1972	n.a.	n.a.	348.2	6,005.9
1973	n.a.	n.a.	391.2	7,008.6
1974	146.9	3,307.6	535.3	10,995.1
1975	125.3	2,936.3	617.5	12,904.5
1976	137.0	3,072.1	732.8	15,508.0

SOURCE: Bureau of the Census, U.S. Census of Manufactures, 1972, Special Report Series, Fuels and Electric Energy Consumed (Washington, D.C.: 1973), MC72(SR)-6, Tables 3 and 4; Bureau of the Census, Annual Survey of Manufactures, 1976, Fuels and Electric Energy Consumed, M76(AS)-4P (Washington, D.C.: 1978), and similar documents for previous years.

a. The quantities of fuels purchased were converted to kilowatt-hour equivalents on the basis of coal, 7,677 kilowatt-hours per short ton; coke, 7,618 kilowatt-hours per short ton; distillate fuel oil, 1,707 kilowatt-hours per 42 gallon barrel; residual fuel oil, 1,842 kilowatt-hours per million cubic feet; and other fuels, 170 kilowatt-hours per dollar cost.

n.a.: not available.

TABLE XIX-34. SOURCES OF CRUDE OIL RECEIVED BY REFINERIES IN MICHIGAN'S REFINERY DISTRICT: 1976 AND 1978

Source	Millions of gallons		Percentage of total	
	1976	1978	1976	1978
Texas	9,924.3	9,638.4	28.5	26.1
Foreign, except Canada	8,270.6	13,197.4	23.7	35.7
Louisiana	4,934.3	3,564.6	14.2	9.6
Michigan and nearby states	2,718.3	3,204.3	7.8	8.7
Wyoming and Montana	2,464.4	1,899.2	7.0	5.1
Canada	2,237.8	1,998.6	6.4	5.4
New Mexico	1,665.2	916.1	4.8	2.5
Other domestic	2,634.4	2,567.2	7.6	6.9
Total	34,853.3	36,985.9	100.0	100.0

SOURCE: Michigan Energy Administration, special release.

NOTE: The refinery district in which Michigan is located also includes Illinois, Indiana, Kentucky, Tennessee, and Western Ohio.

TABLE XIX-35. SOURCES OF BITUMINOUS COAL AND LIGNITE FOR MICHIGAN: 1976 AND 1978

Source	Thousands of tons		Percentage of total	
	1976	1978	1976	1978
Eastern Kentucky	9,220.0	10,402.0	30.9	37.7
Ohio	8,141.0	5,248.0	27.4	19.0
Northern W. Virginia	5,382.0	4,056.0	18.1	14.7
Montana	2,887.0	3,407.0	9.7	12.3
Western Kentucky	1,354.0	422.0	4.5	1.5
Southern W. Virginia	1,189.0	1,014.0	4.0	3.7
Pennsylvania	787.0	2,094.0	2.6	7.6
Other	845.0	965.0	2.8	3.5
Total	29,805.0	27,608.0	100.0	100.0

SOURCE: Michigan Energy Administration, special release.

TABLE XIX-36. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1976, 1977, AND 1978

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Alcona	1976	47,590	252	4,536	2,873
	1977	47,890	245	4,935	1,959
	1978	48,940	247	4,874	2,321
Alger	1976	71,690	396	6,906	3,110
	1977	73,270	387	6,199	2,367
	1978	79,180	405	6,288	1,466
Allegan	1976	522,880	5,106	39,226	12,999
	1977	551,370	4,465	34,093	13,133
	1978	574,780	4,801	33,031	13,364
Alpena	1976	107,000	3,189	18,370	10,288
	1977	127,840	3,090	14,709	7,922
	1978	122,570	3,313	15,026	7,463
Antrim	1976	91,690	526	13,898	4,699
	1977	94,920	515	13,326	4,333
	1978	102,520	535	15,500	3,913
Arenac	1976	72,180	395	9,128	4,025
	1977	81,080	337	13,073	4,218
	1978	81,990	367	13,705	1,984
Baraga	1976	53,790	972	3,792	1,645
	1977	61,400	651	4,113	1,013
	1978	79,340	647	5,330	1,165
Barry	1976	207,260	2,118	22,634	8,684
	1977	210,880	2,132	25,912	9,868
	1978	195,250	1,881	21,524	10,214
Bay	1976	853,910	10,458	46,767	14,636
	1977	789,470	11,598	39,568	11,186
	1978	855,530	13,184	50,886	13,288
Benzie	1976	66,040	571	10,854	3,744
	1977	66,590	599	7,392	2,302
	1978	69,000	602	8,667	3,911
Berrien	1976	1,694,280	14,034	82,933	33,742
	1977	1,706,940	13,339	86,437	37,138
	1978	1,678,080	13,669	81,832	36,508
Branch	1976	306,930	2,706	26,437	9,285
	1977	274,450	2,661	25,170	14,046
	1978	281,860	2,680	23,940	11,478
Calhoun	1976	1,343,730	11,773	104,673	51,006
	1977	1,315,830	10,895	99,309	51,993
	1978	1,444,630	11,771	92,660	44,604
Cass	1976	338,090	2,280	19,792	8,119
	1977	359,350	2,294	22,147	8,663
	1978	385,190	2,194	21,771	5,945
Charlevoix	1976	246,650	1,015	12,966	5,080
	1977	235,220	1,073	11,251	4,637
	1978	239,660	1,235	7,877	5,420
Cheboygan	1976	163,440	2,155	19,385	10,901
	1977	164,790	1,401	14,575	9,266
	1978	175,030	1,151	16,047	3,493
Chippewa	1976	217,820	1,453	22,105	13,566
	1977	197,830	1,339	20,562	14,032
	1978	183,270	1,269	17,277	9,073
Clare	1976	118,240	758	18,455	5,429
	1977	125,530	740	18,034	5,512
	1978	127,090	776	204,330	6,636

TABLE XIX-36. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1976, 1977, AND 1978 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Clinton	1976	246,070	2,566	19,000	9,564
	1977	255,130	2,346	21,329	9,987
	1978	257,880	2,364	21,795	8,110
Crawford	1976	69,250	462	13,332	3,934
	1977	79,630	448	18,324	3,129
	1978	82,470	462	14,435	3,533
Delta	1976	451,370	8,318	18,900	11,631
	1977	522,380	8,257	23,229	13,572
	1978	515,350	8,457	20,028	7,374
Dickinson	1976	387,050	2,959	14,170	10,762
	1977	395,700	2,930	14,390	7,287
	1978	387,350	3,099	13,024	6,929
Eaton	1976	562,280	6,975	33,794	15,423
	1977	555,340	6,296	41,044	11,575
	1978	574,590	6,751	31,645	8,530
Emmet	1976	226,290	1,273	17,863	4,209
	1977	238,010	1,304	13,625	3,937
	1978	233,760	1,340	12,036	3,801
Genesee	1976	3,575,750	37,676	256,689	43,333
	1977	3,737,350	33,654	198,432	45,622
	1978	3,766,220	35,332	180,436	32,863
Gladwin	1976	84,060	405	7,694	2,816
	1977	89,090	385	7,741	2,768
	1978	92,980	375	14,113	3,039
Gogebic	1976	118,770	836	9,083	6,314
	1977	128,940	2,140	9,054	4,879
	1978	123,040	808	5,614	5,297
Grand Traverse	1976	302,450	3,605	48,900	8,017
	1977	316,710	3,578	48,557	9,504
	1978	336,960	4,007	38,105	11,070
Gratiot	1976	334,730	4,029	24,524	11,181
	1977	327,360	3,639	25,664	11,747
	1978	334,040	3,535	20,762	12,510
Hillsdale	1976	267,610	2,291	33,890	7,947
	1977	257,710	2,194	21,315	9,503
	1978	263,770	2,166	21,333	10,478
Houghton	1976	161,460	1,479	15,159	10,121
	1977	161,410	1,493	15,166	9,720
	1978	165,200	1,571	17,181	11,505
Huron	1976	236,970	2,102	24,218	16,245
	1977	245,540	1,630	23,296	18,209
	1978	258,780	1,754	21,417	18,109
Ingham	1976	2,319,590	21,396	167,547	26,100
	1977	2,436,330	18,816	172,414	23,125
	1978	2,483,800	20,435	165,442	18,580
Ionia	1976	303,120	3,488	22,399	6,074
	1977	295,750	3,182	24,080	6,448
	1978	302,010	3,221	23,777	7,937
Iosco	1976	166,300	1,623	9,659	4,032
	1977	170,870	1,646	12,215	3,090
	1978	170,870	1,729	13,677	4,239
Iron	1976	70,710	902	7,104	3,792
	1977	84,540	859	6,429	3,934
	1978	77,250	866	7,143	3,155
Isabella	1976	208,480	2,661	20,665	6,000
	1977	214,510	2,561	26,723	6,231
	1978	218,280	2,559	24,816	8,007

TABLE XIX-36. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1976, 1977, AND 1978 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Jackson	1976	967,590	12,968	74,501	15,479
	1977	1,030,780	12,366	69,386	18,070
	1978	1,060,220	13,716	81,304	29,720
Kalamazoo	1976	2,000,180	22,103	93,236	40,438
	1977	2,047,350	18,115	94,213	32,398
	1978	2,074,630	25,742	94,892	27,423
Kalkaska	1976	55,820	227	9,631	1,522
	1977	56,070	228	8,853	1,771
	1978	62,580	249	9,060	2,377
Kent	1976	2,682,820	42,966	288,754	64,992
	1977	2,762,440	40,750	245,054	73,012
	1978	2,831,080	43,440	259,781	73,857
Keweenaw	1976	15,830	0	546	978
	1977	16,080	0	144	756
	1978	15,870	0	447	1,039
Lake	1976	46,860	0	6,926	1,007
	1977	49,500	0	4,696	757
	1978	51,550	0	3,850	875
Lapeer	1976	323,210	2,936	28,458	9,087
	1977	344,470	2,538	27,578	6,801
	1978	363,440	4,642	25,684	3,515
Leelanau	1976	86,480	99	12,753	5,294
	1977	88,560	94	9,536	2,497
	1978	90,050	87	22,551	3,945
Lenawee	1976	550,000	5,972	48,574	12,540
	1977	585,370	5,794	48,911	15,400
	1978	604,140	5,979	37,332	17,429
Livingston	1976	482,290	4,449	36,377	13,056
	1977	519,020	4,085	35,934	17,662
	1978	542,700	4,320	42,767	13,903
Luce	1976	46,860	344	5,867	4,416
	1977	48,440	333	5,257	2,521
	1978	47,900	304	5,416	2,910
Mackinac	1976	66,420	146	12,411	5,879
	1977	73,470	166	11,678	6,064
	1978	78,470	155	8,368	3,426
Macomb	1976	4,582,450	55,815	296,086	55,929
	1977	4,774,740	49,826	359,148	70,071
	1978	4,905,140	54,231	400,510	63,907
Manistee	1976	240,590	7,521	12,354	8,529
	1977	280,450	7,692	17,304	5,536
	1978	282,470	8,214	11,384	4,085
Marquette	1976	528,610	16,493	41,801	36,398
	1977	503,580	21,103	41,446	38,321
	1978	580,990	17,168	63,182	23,659
Mason	1976	227,420	5,261	20,186	5,111
	1977	249,510	5,583	17,716	5,824
	1978	273,540	7,850	19,563	9,066
Mecosta	1976	153,900	1,914	21,267	4,437
	1977	157,080	2,758	18,109	2,630
	1978	159,830	1,872	15,865	2,447
Menominee	1976	186,760	1,781	14,826	6,880
	1977	200,910	1,640	14,612	5,222
	1978	208,100	1,676	17,168	6,094
Midland	1976	1,191,510	14,026	19,300	4,779
	1977	1,389,790	11,802	21,520	5,622
	1978	1,355,440	11,271	24,786	8,752

TABLE XIX-36. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1976, 1977, AND 1978 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Missaukee	1976	46,630	211	4,691	1,775
	1977	47,550	182	2,842	744
	1978	49,340	179	3,291	821
Monroe	1976	927,280	10,677	47,577	51,101
	1977	990,590	10,616	49,364	56,586
	1978	979,600	10,937	63,067	57,313
Montcalm	1976	292,910	2,984	30,770	10,851
	1977	316,690	2,792	24,765	9,798
	1978	319,280	2,987	26,908	9,422
Montmorency	1976	32,190	0	5,424	2,211
	1977	29,540	0	5,238	2,491
	1978	31,920	0	6,091	2,003
Muskegon	1976	1,447,220	16,535	129,336	39,825
	1977	1,362,860	15,464	61,133	15,043
	1978	1,422,070	16,224	70,385	17,686
Newaygo	1976	170,360	1,388	19,809	5,885
	1977	173,050	1,186	11,357	8,194
	1978	179,140	1,412	11,512	4,109
Oakland	1976	6,671,870	84,472	536,560	90,055
	1977	7,072,550	75,371	653,217	159,079
	1978	7,202,130	82,855	659,230	148,808
Oceana	1976	101,940	895	11,055	2,904
	1977	107,920	855	10,456	3,511
	1978	107,830	911	6,034	1,457
Ogemaw	1976	106,690	482	5,142	2,475
	1977	119,860	470	9,188	2,432
	1978	120,710	484	5,533	2,530
Ontonagon	1976	316,170	786	5,692	2,513
	1977	333,510	3,071	5,964	1,818
	1978	372,370	2,022	5,175	2,142
Osceola	1976	110,790	926	9,955	4,386
	1977	118,390	920	7,127	3,574
	1978	123,890	914	10,066	2,979
Oscoda	1976	42,820	0	3,848	3,301
	1977	43,100	0	4,514	3,767
	1978	44,380	0	5,986	4,128
Otsego	1976	108,610	5,108	18,232	4,347
	1977	102,290	3,353	19,524	5,329
	1978	137,080	3,533	16,242	3,177
Ottawa	1976	847,400	12,215	76,601	18,407
	1977	896,540	11,111	81,481	16,476
	1978	942,630	11,976	70,906	15,848
Presque Isle	1976	104,980	382	7,170	6,287
	1977	100,470	371	6,365	5,022
	1978	106,070	365	5,063	2,780
Roscommon	1976	97,030	939	13,690	3,628
	1977	99,040	908	11,875	4,345
	1978	102,650	942	12,752	4,168
Saginaw	1976	2,746,040	25,824	105,443	27,891
	1977	2,833,720	23,106	115,042	34,293
	1978	2,836,630	24,771	120,045	26,758
St. Clair	1976	1,148,390	9,053	77,830	25,976
	1977	1,173,950	8,297	60,364	27,614
	1978	1,181,670	9,172	60,740	37,135
St. Joseph	1976	435,500	4,088	42,335	11,987
	1977	466,250	3,917	44,492	10,098
	1978	468,190	4,283	46,659	10,628

TABLE XIX-36. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1976, 1977, AND 1978 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Sanilac	1976	224,350	1,053	31,907	11,189
	1977	236,490	831	21,429	10,573
	1978	240,130	1,386	23,689	9,501
Schoolcraft	1976	132,190	649	5,906	1,762
	1977	152,070	744	4,573	1,790
	1978	155,190	242	3,514	1,081
Shiawassee	1976	327,360	4,096	29,170	10,088
	1977	344,180	3,699	24,185	10,096
	1978	356,630	4,127	24,196	12,650
Tuscola	1976	271,630	2,088	29,346	14,960
	1977	288,470	1,826	35,267	16,421
	1978	288,190	1,925	16,097	11,250
Van Buren	1976	365,620	4,114	26,259	12,671
	1977	370,860	3,859	31,730	13,546
	1978	394,450	4,100	35,035	10,962
Washtenaw	1976	2,224,390	24,299	139,444	29,160
	1977	2,356,200	24,440	167,051	31,633
	1978	2,444,550	24,847	186,317	51,263
Wayne	1976	19,543,990	342,971	1,185,995	307,244
	1977	19,963,750	314,774	1,252,216	308,681
	1978	20,060,250	323,943	1,260,350	340,073
Wexford	1976	142,950	1,667	14,537	5,335
	1977	150,910	1,702	15,216	5,066
	1978	156,350	1,770	16,533	5,155
TOTAL	1976	70,038,200	918,126	4,905,025	1,416,237
	1977	72,425,360	853,856	4,970,902	1,486,810
	1978	73,779,460	898,781	5,075,219	1,461,885

SOURCE: Michigan Energy Information System, Energy Data and Modelling Division, Michigan Energy Administration, special release.

a. Kilowatt-hours.
b. Millions of cubic feet.

XX. WHOLESALE TRADE

The first postwar business census covered the year 1948. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at 5-year intervals covering the years ending in "2" and "7." These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: those primarily engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm, or professional users; to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to such persons or companies who are classified as wholesalers. Also included are wholesale liquor establishments operated by state or local governments. The basic tabulations in this chapter do not include data for central administrative offices, captive warehouses, and other units which service or are auxiliary to wholesale establishments within the same organization.

The 1972 Census of Wholesale Trade covers all such establishments that have a payroll. Firms with payrolls were sent questionnaires for each establishment operated.

Several changes were made in the kind-of-business definitions between 1967 and 1972, with the result that comparability between the two censuses is limited. Electrical supply stores; plumbing and heating equipment dealers; farm equipment dealers; hay, grain, and feed stores; and other farm supply stores are now classified in wholesale trade. These were designated as retailers. In Table XX-1 the 1972 wholesale trade aggregates for the state are reported on the basis of the 1967 classification as well as that now current.

Sales reported in the Census of Wholesale Trade do not include wholesale sales incidental to other kinds of business such as retailing or services. They do include total receipts, including accruals, of wholesale establishments, even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, retailing to households, and so forth. Refunds and allowances for merchandise returned are deducted. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments in business at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick-leave pay before deducting employees income taxes, Social Security taxes, union dues, and so forth.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

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TABLE XX-1. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN: 1947, 1954, 1958, 1963, 1967 AND 1972

Year	Number of establishments[a]	Sales ($1,000,000)	Annual payroll ($1,000,000)	Paid employees[b]	Merchant wholesalers	
					Establishments	Sales ($1,000,000)
1947[c]	8,485	6,721	319	88,725	4,988	2,445
1947	7,600	n.a.	298	83,138	4,484	2,361
1954	9,441	10,087	479	99,793	6,174	3,665
1958	10,797	11,600	547	105,273	7,021	4,167
1963	11,635	14,055	711	113,845	7,771	5,224
1967	11,436	18,800	976	131,751	7,693	7,429
1972[d]	12,208	26,238	1,369	133,359	8,453	11,095
1972[e]	12,827	26,546	1,397	137,037	9,709	11,828

SOURCES: Bureau of the Census, U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table I and 5; and Bureau of the Census, U.S. Census of Business, 1967, Wholesale Trade, Michigan (Washington, D.C.: 1969), BC67-WA24, Table 2, and similar census documents for 1963 (BC63-WA24, Table 2), 1958 (BC58-WA22, Table 101), 1954 (W-1-22, Tables 101 and 105), and 1947 (vol. 5, Michigan section, Table 101).

a. Excludes establishments with no paid employment.

b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.

c. Unrevised statistics. Based upon reports from establishments with sales volume of $5,000 or over.

d. Based on 1967 Standard Industrial Classification.

e. Based on 1972 Standard Industrial Classification.

n.a.: not available.

TABLE XX-2. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY TYPE OF OPERATION: 1972

Type of operation	Number of establishments[a]	Sales ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Merchant wholesalers					
Wholesale merchants and distributors	9,432	11,389,979	947,595	223,400	98,150
Grain elevators (terminals, and country	160	231,363	10,195	2,286	1,266
Importers	99	196,250	10,665	2,564	935
Exporters	18	10,226	1,062	265	142
TOTAL	9,709	11,827,818	969,517	228,515	100,493
Manufacturers' sales branches and sales offices					
Manufacturers' sales branches, with stock	1,131	4,535,901	234,711	56,512	20,973
Manufacturers' sales offices, without stock	621	7,231,666	106,801	26,554	8,261
TOTAL	1,752	11,767,567	341,512	83,066	29,234
Merchandise agents and brokers					
Merchandise brokers for buyers or sellers	162	657,663	13,414	3,200	1,120
Commission merchants	201	377,110	9,630	2,256	969
Manufacturers' agents	901	1,596,099	57,293	13,277	4,270
Other agents and brokers	102	319,514	6,128	1,483	951
TOTAL	1,366	2,950,386	86,465	20,216	7,310
GRAND TOTAL	12,827	26,545,771	1,397,494	331,797	137,037

SOURCE: Bureau of the Census, U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table I.

a. Excludes establishments with no paid employment.

TABLE XX-3. SELECTED DATA FOR WHOLESALE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972

Type of operation	Number of establishments[a]	Sales ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
		Durable goods			
Motor vehicles and automotive parts and supplies	1,433	4,884,133	165,307	39,686	16,403
Automobiles and other motor vehicles	216	2,897,917	37,646	9,140	3,494
Automotive parts and supplies	1,111	1,727,503	115,722	27,620	11,647
Tires and tubes	106	258,713	11,939	2,926	1,262
Furniture and home furnishings	298	368,134	29,300	6,776	2,841
Furniture	154	119,075	12,700	2,985	1,162
Home furnishings	144	249,059	16,600	3,791	1,679
Lumber and other construction materials	637	1,385,003	73,695	16,934	6,644
Lumber, plywood, and millwork	286	575,801	36,177	8,278	3,331
Construction materials, N.E.C.	351	809,202	37,518	8,656	3,313
Sporting, recreational, photographic, and hobby goods, toys, and supplies	242	301,986	32,639	7,740	3,343
Sporting and recreational goods and supplies	142	166,249	16,962	3,875	1,917
Hobby goods, toys, and supplies	36	52,095	4,497	1,059	495
Photographic equipment and supplies	64	83,642	11,180	2,806	931
Metals and minerals, except petroleum	448	3,651,329	83,264	20,337	6,961
Metals service centers and offices	427	3,559,313	81,459	19,943	6,849
Coal and other minerals and ores	21	92,016	1,805	394	112
Electrical goods	713	1,657,664	85,235	20,599	8,016
Electrical apparatus and equipment, wiring supplies, and construction materials	386	1,059,653	49,445	12,089	4,631
Electrical appliances and TV and radio sets	115	416,456	22,272	5,187	1,915
Electronic parts and equipment	212	181,555	13,518	3,323	1,470

TABLE XX-3. SELECTED DATA FOR WHOLESALE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Type of operation	Number of establishments[a]	Sales ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
	Durable goods (cont.)				
Hardware, plumbing, heating equipment, supplies	685	734,250	68,422	16,671	6,470
Hardware	195	272,846	22,547	5,547	2,214
Plumbing and heating equipment and supplies (hydronics)	287	273,185	27,037	6,570	2,542
Warm air heating and air-conditioning equipment and supplies	168	167,525	16,316	3,903	1,487
Refrigeration equipment and supplies	35	20,694	2,522	651	227
Machinery, equipment, and supplies	2,853	3,490,623	334,762	79,344	30,390
Commercial machines and equipment	367	544,343	84,348	19,846	6,743
Construction and mining machinery and equipment	129	213,033	24,071	5,792	1,897
Farm and garden machinery and equipment	479	365,731	28,866	6,585	3,440
Industrial machinery and equipment	768	893,066	77,421	18,436	6,738
Industrial supplies	596	1,072,944	74,079	17,568	6,574
Professional equipment and supplies	237	241,467	28,172	6,756	2,937
Service establishment equipment and supplies	238	105,401	14,514	3,601	1,718
Transportation equipment and supplies except motor vehicles	39	54,638	3,291	760	343
Miscellaneous durable goods	567	520,482	51,539	11,492	5,417
Scrap and waste materials	370	343,542	33,109	7,914	3,824
Jewelry, watches, diamonds, and other precious stones	62	42,478	4,046	974	457
Durable goods, N.E.C.	135	134,462	14,384	2,604	1,136
TOTAL DURABLE GOODS	7,876	16,993,604	924,163	219,579	86,485

TABLE XX-3. SELECTED DATA FOR WHOLESALE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Type of operation	Number of establishments[a]	Sales ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
		Nondurable goods			
Paper and paper products	340	418,785	41,309	9,691	4,111
Printing and writing paper	48	141,573	11,709	2,709	1,055
Stationery supplies	185	135,753	17,139	3,991	1,832
Industrial and personal service paper	107	141,459	12,461	2,991	1,224
Drugs, drug proprietaries, druggists' sundries	110	337,672	19,349	4,552	2,023
Apparel, piece goods, and notions	127	219,121	13,918	3,465	1,229
Piece goods	30	70,820	4,013	1,005	363
Notions and other dry goods	12	(D)	(D)	(D)	(D)
Men's and boys' clothing and furnishings	45	32,925	2,910	672	319
Women's, children's, and infants' clothing and accessories	34	23,523	2,335	627	261
Footwear	6	(D)	(D)	(D)	(D)
Groceries and related products	1,248	3,815,488	171,510	40,727	17,634
Groceries, general line	84	1,199,942	51,286	12,065	4,453
Frozen foods	53	95,191	4,836	1,076	569
Dairy products	135	246,754	13,195	3,057	1,455
Poultry and poultry products	72	181,077	7,231	1,724	888
Confectionery	78	66,932	3,537	831	446
Fish and seafoods	33	38,975	2,618	546	275
Meat and meat products	221	570,681	27,636	6,715	2,851
Fresh fruits and vegetables	227	315,551	17,006	4,076	2,213
Groceries and related products, N.E.C.	345	1,100,385	44,165	10,637	4,483

TABLE XX-3. SELECTED DATA FOR WHOLESALE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Type of operation	Number of establishments[a]	Sales ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
		Nondurable goods (cont.)			
Farm product raw materials	259	535,340	14,425	3,266	2,168
Cotton	1	(D)	(D)	(D)	(D)
Grain	196	288,498	11,917	2,676	1,485
Livestock	42	229,073	1,764	410	572
Farm product raw materials, N.E.C.	20	(D)	(D)	(D)	(D)
Chemicals and allied products	217	767,775	25,505	6,320	2,202
Petroleum and petroleum products	1,154	1,343,267	64,901	16,191	8,118
Petroleum bulk stations and terminals	1,023	1,068,512	54,680	13,704	7,002
Petroleum and petroleum products, except bulk stations and terminals	131	274,755	10,221	2,487	1,116
Beer, wine, and distilled alcoholic beverages	409	902,828	51,753	11,358	4,396
Beer and ale	227	363,239	39,164	8,544	3,110
Wines and distilled alcoholic beverages	182	539,589	12,589	2,814	1,286
Miscellaneous nondurable goods	1,087	1,211,891	70,661	16,648	8,671
Farm supplies	442	277,277	19,048	4,492	2,548
Tobacco and tobacco products	98	308,570	12,212	2,938	1,370
Paints, varnishes, and supplies	115	178,211	8,535	2,079	888
Nondurable goods, N.E.C.	432	447,833	30,866	7,139	3,865
TOTAL NONDURABLE GOODS	4,951	9,552,167	473,331	112,218	50,552
TOTAL	12,827	26,545,771	1,397,494	331,797	137,037

SOURCE: Bureau of the Census, U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table I.

a. Excludes establishments with no paid employment.

D.: Data withheld to avoid disclosing figures for individual companies.

N.E.C.: not elsewhere classified.

TABLE XX-4. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972

County	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Alcona	10	7,428	661	649	147	75
Alger	13	4,039	520	285	62	40
Allegan	96	75,959	5,797	5,281	1,278	773
Alpena	60	39,388	2,684	3,227	744	400
Antrim	16	7,988	887	540	112	71
Arenac	26	14,339	1,029	826	232	116
Baraga	14	3,098	212	171	44	27
Barry	46	13,392	1,107	1,069	273	174
Bay	148	208,312	16,270	14,432	3,470	1,603
Benzie	8	(D)	(D)	(D)	(D)	(D)
Berrien	230	214,249	12,805	13,915	3,169	1,784
Branch	67	87,008	8,156	4,415	1,018	536
Calhoun	183	190,807	11,083	13,075	3,074	1,595
Cass	41	33,315	1,532	1,978	452	266
Charlevoix	24	8,719	733	185	112	18
Cheboygan	36	16,282	1,364	1,081	262	137
Chippewa	54	22,013	1,639	1,755	420	227
Clare	29	16,031	700	1,197	283	187
Clinton	62	59,568	6,794	3,533	839	447
Crawford	9	4,176	332	321	82	49
Delta	71	52,596	4,375	3,190	769	389
Dickinson	65	73,604	5,857	4,561	1,073	528
Eaton	81	97,668	33,151	9,601	2,285	1,025
Emmet	46	25,841	2,432	2,661	679	324
Genesee	386	635,080	38,642	43,050	10,210	4,305

TABLE XX-4. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	Number of establishments [a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Gladwin	12	3,486	306	296	66	44
Gogebic	35	19,684	1,302	1,399	339	196
Grand Traverse	104	97,819	10,248	8,268	2,037	1,064
Gratiot	66	112,482	6,364	7,036	1,760	837
Hillsdale	58	47,976	5,955	3,560	849	452
Houghton	40	15,968	1,426	1,427	372	241
Huron	83	58,319	7,039	3,702	840	486
Ingham	377	714,884	41,213	46,653	10,969	4,633
Ionia	56	32,026	2,070	2,028	520	308
Iosco	25	8,693	697	826	164	96
Iron	29	11,331	1,286	1,136	270	136
Isabella	67	75,997	4,896	4,228	916	490
Jackson	216	318,918	17,152	4,085	1,854	169
Kalamazoo	334	429,636	33,786	35,453	8,716	3,583
Kalkaska	11	2,135	204	136	27	12
Kent	965	2,095,315	155,896	126,255	30,212	12,410
Keweenaw	1	(D)	(D)	(D)	(D)	(D)
Lake	3	682	66	69	16	18
Lapeer	57	55,492	2,500	2,661	635	316
Leelanau	11	5,989	871	375	64	36
Lenawee	126	95,557	5,560	6,484	1,648	793
Livingston	57	34,493	2,276	2,506	603	279
Luce	10	4,686	210	506	125	94
Mackinac	16	4,185	300	383	95	63
Macomb	550	1,183,990	145,644	64,155	15,180	6,246

TABLE XX-4. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Manistee	27	20,040	1,143	1,396	349	273
Marquette	97	58,521	6,240	5,580	1,307	697
Mason	32	16,150	1,207	1,165	273	193
Mecosta	25	10,307	1,094	808	205	130
Menominee	53	42,025	3,058	2,391	533	313
Midland	43	28,731	3,722	2,272	546	241
Missaukee	14	6,003	542	373	90	55
Monroe	94	97,178	8,484	5,037	1,218	599
Montcalm	65	37,838	4,136	2,718	677	396
Montmorency	7	1,566	82	166	40	29
Muskegon	194	196,931	22,221	17,131	4,238	2,034
Newaygo	37	13,675	1,011	1,245	281	215
Oakland	2,036	8,055,825	193,548	252,722	60,177	20,786
Oceana	20	6,562	623	739	142	91
Ogemaw	30	11,794	1,271	1,013	203	104
Ontonagon	11	2,242	149	236	61	32
Osceola	27	15,945	835	964	218	156
Oscoda	9	1,671	108	107	27	24
Otsego	30	24,534	2,098	1,578	392	188
Ottawa	197	201,214	17,146	17,220	3,941	1,856
Presque Isle	16	4,364	275	349	76	74
Roscommon	23	5,662	626	665	153	104
Saginaw	334	462,101	44,355	35,008	8,144	3,795
St. Clair	141	102,340	12,120	8,907	2,132	1,080
St. Joseph	72	67,026	3,739	4,110	931	522

TABLE XX-4. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Sanilac	74	60,572	3,671	3,502	734	426
Schoolcraft	18	7,414	498	666	173	106
Shiawassee	97	95,275	8,163	7,223	1,572	809
Tuscola	77	108,088	9,253	5,439	1,257	614
Van Buren	80	53,564	3,263	3,658	806	439
Washtenaw	228	199,072	13,753	15,684	3,618	1,730
Wayne	3,441	9,161,725	512,997	526,852	125,058	48,738
Wexford	48	26,069	2,189	2,039	479	267
TOTAL	12,872	26,545,771	1,491,917	1,397,494	331,797	137,037

SOURCE: Bureau of the Census, U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C : 1974), WC72-A-23, Table 4.

a. Excludes establishments with no paid employment.

D.: Data withheld to avoid disclosing figures for individual companies.

TABLE XX-5. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Adrian	50	35,817	2,296	3,110	818	358
Albion	18	7,405	592	561	125	72
Allen Park	31	171,102	7,953	5,064	1,228	488
Alma	17	49,098	1,388	4,393	1,130	457
Alpena	44	29,714	2,258	2,575	596	297
Ann Arbor	97	94,675	6,316	7,253	1,731	777
Battle Creek	75	84,196	5,547	6,487	1,575	800
Bay City	92	160,981	11,941	10,649	2,604	1,198
Belding	6	2,915	338	137	56	24
Benton Harbor	68	45,097	2,661	3,886	935	564
Berkley	36	49,260	1,021	2,148	532	231
Beverly Hills	27	95,181	1,278	1,584	345	123
Big Rapids	14	6,394	601	438	109	66
Birmingham	102	194,775	2,080	7,388	1,823	547
Burton	15	10,584	866	1,203	278	129
Cadillac	41	24,583	2,118	1,948	456	251
Center Line	19	D	D	D	D	D
Charlotte	20	D	D	D	D	D
Cheboygan	22	9,525	598	686	172	83
Clawson	16	17,688	1,774	2,240	578	167
Coldwater	38	68,551	5,365	3,057	718	378
Davison	5	8,924	247	455	125	39
Dearborn	189	646,067	32,919	34,646	8,146	2,759
Dearborn Heights	51	61,650	2,347	4,364	1,045	433
Detroit	2,392	6,089,059	341,902	362,726	86,062	33,691

TABLE XX-5. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972 (cont.)

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Dowagiac	14	7,728	501	763	176	87
East Detroit	28	18,835	1,000	1,586	318	154
East Grand Rapids	10	5,873	14	228	45	17
East Lansing	25	36,173	1,087	4,138	953	277
Ecorse	12	15,474	2,555	814	192	80
Escanaba	55	39,194	2,727	2,941	713	346
Farmington	53	60,193	2,478	5,304	1,297	375
Fenton	14	13,855	1,349	996	219	117
Ferndale	119	222,849	12,955	15,472	3,772	1,354
Flatrock	6	3,673	157	300	82	40
Flint	235	343,850	24,973	30,573	7,290	2,972
Flushing	15	D	D	D	D	D
Fraser	25	26,935	4,619	2,641	620	253
Garden City	13	11,359	564	781	207	87
Gladstone	9	D	D	D	D	D
Grand Blanc	7	D	D	D	D	D
Grand Haven	17	18,716	5,944	748	157	80
Grand Ledge	9	D	D	D	D	D
Grand Rapids	537	902,414	62,030	61,916	14,802	6,320
Grandville	29	46,640	4,843	3,398	754	316
Greenville	16	10,886	1,005	1,006	238	118
Grosse Pointe	7	4,107	15	187	46	15
Grosse Pointe Farms	16	11,526	91	684	151	49
Grosse Pointe Park	18	12,150	338	505	108	44
Grosse Pointe Woods	30	39,740	1,091	1,001	190	73

TABLE XX-5. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972 (cont.)

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Hamtramck	45	104,607	5,715	9,487	2,424	1,169
Hancock	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Harper Woods	21	50,260	258	888	181	82
Hastings	20	7,567	415	501	138	87
Hazel Park	46	46,127	5,418	4,561	1,053	474
Highland Park	63	159,901	13,374	12,794	3,133	1,282
Hillsdale	25	19,857	2,269	1,537	369	187
Holland	77	53,351	4,842	4,018	945	441
Houghton	8	6,490	756	620	159	93
Howell	13	9,892	474	527	112	78
Huntington Woods	14	51,182	707	1,041	294	78
Inkster	9	7,560	472	854	248	94
Ionia	17	9,389	556	636	163	99
Iron Mountain	45	39,125	2,881	2,819	672	339
Ironwood	22	15,080	1,042	917	219	126
Ishpeming	19	13,206	1,170	1,376	285	174
Jackson	123	247,744	14,382	12,080	2,891	1,242
Kalamazoo	217	247,315	27,127	24,272	6,098	2,495
Kentwood	44	297,145	11,722	13,668	3,370	1,182
Kingsford	8	D	D	D	D	D
Lansing	273	D	D	D	D	D
Lapeer	18	13,748	800	1,180	300	114
Lincoln Park	22	D	D	D	D	D
Livonia	101	655,073	42,367	31,992	7,317	2,666
Ludington	15	6,786	414	632	147	95

TABLE XX-5. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972 (cont.)

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Madison Heights	78	147,225	14,558	14,363	3,217	1,252
Manistee	19	13,434	834	990	253	189
Marquette	54	29,130	2,744	2,611	648	348
Marshall	24	49,853	1,893	1,718	394	221
Marysville	5	2,844	482	467	106	38
Mason	15	12,811	1,265	1,002	219	123
Melvindale	17	54,561	3,901	2,588	588	282
Menominee	27	34,227	2,410	1,777	412	229
Midland	37	27,395	3,482	2,160	517	212
Monroe	39	39,374	2,444	2,572	639	280
Mount Clemens	43	44,709	3,010	4,284	1,056	455
Mount Pleasant	42	61,850	3,558	3,257	689	374
Muskegon	99	111,503	13,540	11,448	2,811	1,333
Muskegon Heights	32	20,596	2,687	2,377	619	258
Negaunee	9	6,261	961	537	132	62
Niles	33	94,634	3,075	3,048	730	367
Northville	8	3,705	115	286	63	30
Norton Shores	15	8,917	891	1,072	232	112
Novi	25	71,112	8,903	4,986	1,139	376
Oak Park	159	534,736	21,398	20,657	4,960	1,833
Owosso	43	34,796	2,697	4,323	920	411
Petoskey	32	22,172	2,101	2,304	593	273
Plymouth	25	D	D	D	D	D
Pontiac	85	294,939	9,500	9,009	2,270	896
Portage	34	108,506	2,261	5,668	1,313	434

TABLE XX-. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972 (cont.)

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Port Huron	57	33,531	2,721	3,212	802	388
River Rouge	9	6,870	946	1,766	430	168
Riverview	6	4,101	557	384	98	39
Rochester	16	26,615	391	2,764	703	401
Romulus	31	90,927	7,840	7,257	1,640	627
Roseville	44	48,067	5,788	5,976	1,353	594
Royal Oak	150	169,291	9,437	10,812	2,465	989
Saginaw	168	243,039	28,164	21,040	4,831	2,274
St. Clair Shores	72	D	D	D	D	D
St. Johns	16	D	D	D	D	D
St. Joseph	22	12,851	626	1,386	236	166
Sault Ste. Marie	34	15,654	1,278	1,329	330	170
Southfield	502	4,285,242	33,171	84,862	20,429	6,072
Southgate	15	11,190	796	1,515	353	156
South Haven	12	6,185	448	627	121	70
Sterling Heights	32	38,763	4,059	2,864	672	267
Sturgis	26	17,760	1,228	2,112	454	230
Taylor	39	221,518	13,267	10,175	2,338	954
Tecumseh	14	31,348	937	723	188	87
Three Rivers	15	14,773	835	485	127	84
Traverse City	80	77,588	5,338	6,156	1,484	741
Trenton	13	4,581	491	605	132	72
Troy	121	273,371	29,979	17,847	4,263	1,476
Walker	26	165,032	12,563	4,935	1,120	529
Warren	186	233,679	32,854	23,143	5,599	2,388

TABLE XX-5. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN CITIES HAVING 5,000 INHABITANTS OR MORE: 1972 (cont.)

Cities	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Wayne	15	17,965	1,777	1,311	296	138
Westland	28	18,284	667	1,119	242	99
Wyandotte	33	51,351	2,528	3,135	720	341
Wyoming	180	387,335	29,678	25,823	6,009	2,453
Ypsilanti	25	16,196	1,078	1,625	357	202

SOURCE: Bureau of the Census, U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table 4.

a. Excludes establishments with no paid employment.

D.: Data withheld to avoid disclosing figures for individual companies.

n.a.: not available.

TABLE XX-6. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in wholesale trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Dickinson	11.24	12,847	10.42	13,388
Kent	8.57	201,254	8.24	220,842
Branch	7.39	11,296	8.16	14,724
Oakland	7.96	434,389	7.81	511,129
Tuscola	7.74	11,837	7.72	13,153
Menominee	6.56	4,796	6.57	5,314
Huron	6.23	7,684	6.37	8,693
Bay	6.38	30,080	6.01	32,345
Iron	5.79	2,182	5.99	2,474
Emmet	6.03	5,248	5.77	5,687
Wayne	5.65	962,600	5.38	1,025,936
Genesee	5.25	153,961	5.16	180,130
Eaton	5.69	8,193	5.06	8,366
Muskegon	5.23	37,402	4.95	39,066
Ottawa	4.68	26,073	4.67	30,846
Gratiot	4.43	7,188	4.50	7,919
Wexford	4.63	3,951	4.47	4,574
Clinton	5.35	4,715	4.45	4,542
Alpena	4.50	5,797	4.44	6,418
Hillsdale	4.47	5,912	4.43	6,771
Grand Traverse	4.13	9,754	4.39	12,022
Luce	(a)	(a)	4.01	1,246
Isabella	4.49	7,121	3.98	7,005
Shiawassee	4.41	8,141	3.96	8,008
Kalamazoo	4.13	48,511	3.93	52,123
Gogebic	3.93	1,963	3.82	2,065
Montcalm	3.98	5,896	3.81	6,443
Delta	3.61	5,289	3.73	5,762
Ingham	3.66	72,136	3.63	80,991
Berrien	3.65	28,917	3.54	32,004
Monroe	2.80	10,189	3.46	14,772
Oceana	4.31	1,647	3.45	1,570
Ogemaw	3.30	1,185	3.44	1,360
Allegan	3.51	6,417	3.42	7,225
Macomb	3.49	113,400	3.38	130,941

TABLE XX-6. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in wholesale trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
St. Joseph	3.47	7,520	3.38	8,199
Arenac	3.43	1,097	3.36	1,253
St. Clair	3.69	15,998	3.32	16,421
Jackson	3.68	26,122	3.29	26,139
Saginaw	3.52	47,123	3.26	49,975
Van Buren	3.44	5,554	3.22	5,797
Sanilac	3.51	4,057	3.18	4,161
Ionia	3.14	4,292	3.16	4,972
Livingston	3.64	6,206	3.10	6,156
Calhoun	2.96	23,845	2.97	26,177
Osceola	3.19	1,529	2.95	1,614
Cass	3.02	3,715	2.91	4,042
Lenawee	2.78	9,924	2.90	11,704
Marquette	2.90	9,393	2.90	10,035
Otsego	3.32	1,837	2.90	1,860
Gladwin	3.04	873	2.74	894
Kalkaska	2.64	796	2.72	991
Mackinac	3.06	1,003	2.70	973
Newaygo	2.52	1,907	2.70	2,211
Iosco	2.39	2,473	2.69	2,890
Montmorency	3.01	440	2.65	459
Manistee	2.79	2,058	2.61	2,230
Mason	2.85	2,401	2.56	2,402
Clare	3.46	1,432	2.50	1,183
Antrim	2.59	963	2.44	1,059
Barry	2.16	2,277	2.32	2,552
Lapeer	2.72	4,578	2.29	4,326
Chippewa	2.05	2,560	2.25	2,726
Houghton	2.49	2,428	2.25	2,423
Presque Isle	2.26	823	2.20	878
Missaukee	2.96	490	2.17	399
Charlevoix	2.30	1,461	2.00	1,478
Washtenaw	1.77	31,303	1.72	35,324
Mecosta	1.60	1,291	1.70	1,519
Alger	1.38	329	1.48	383

TABLE XX-6. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in wholesale trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Benzie	1.35	365	1.41	446
Crawford	1.38	354	1.27	363
Alcona	3.57	488	.80	127
Midland	.52	2,464	.51	2,782
Baraga	(a)	(a)	(a)	(a)
Cheboygan	(a)	(a)	(a)	(a)
Keweenaw	1.88	81	(a)	(a)
Lake	(a)	(a)	(a)	(a)
Leelanau	(a)	(a)	(a)	(a)
Ontonagon	(a)	(a)	(a)	(a)
Oscoda	(a)	(a)	(a)	(a)
Roscommon	(a)	(a)	(a)	(a)
Schoolcraft	(a)	(a)	(a)	(a)
Michigan	5.14	2,497,689	4.97	2,760,422
United States	6.65	69,673,000	6.60	76,914,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Withheld to avoid the possibility of disclosing payroll information for a single company.

XXI. RETAIL TRADE

The first postwar business census covered the year 1948. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at 5-year intervals covering the years ending in "2" and "7." These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in selling goods for personal or household consumption fall in the retail trade division, where they are further classified according to kind of business. Most kind-of-business designations reflect commodity groupings, such as food stores including establishments primarily selling food for preparation and consumption in the home. In some cases, for example, variety stores, the kind-of-business classification is based on variety of merchandise, price range, or manner of doing business.

Beginning in 1954, the Census of Retail Trade has excluded firms with no paid employees during the census year unless they reported sales of $2,500 or more. Firms with no paid employees were not actually canvassed, their sales figures and kind-of-business classification being obtained from income tax returns.

Several changes were made in the kind-of-business definitions between 1967 and 1972 with the result that comparability between the two censuses is limited. Electrical supply stores; plumbing and heating equipment dealers; farm equipment dealers; hay, grain, and feed stores; and other farm supply stores are no longer classified in retail trade. These are now designated as wholesalers. Within retail trade itself there also have been several changes such as the transfer of bedding and linen shops from miscellaneous general merchandise stores to miscellaneous home furnishings stores. In Table XX-1 the 1972 retail trade aggregates for the state are reported on the basis of the 1967 classification as well as that now current. The 1977 figures are on the basis of the 1972 classification. The final report was not available for inclusion here. Advance data are reproduced in Tables XXI-2 and XXI-4.

It is customary in an economic census to classify each establishment separately irrespective of whether it is part of a larger organization. For example, each "McDonald's" is a restaurant.

Sales reported in the Census of Retail Trade do not include retail sales incidental to other kinds of business such as wholesaling or services. They do include total receipts, including accruals, of retail establishments even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, wholesaling to other retailers, and so forth. Trade-in allowances are not deducted but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments with a sales volume of $2,500 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. The Census also includes establishments in operation less than the full year, with reported sales of less than $2,500, if they could have expected reaching the $2,500 cutoff on the basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and

sick leave pay before deducting employees' income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

All data exclude the activities of central administrative offices such as Kresge headquarters in Troy. Auxiliaries, such as regional warehouses that supply retail outlets but conduct no retail business themselves, are excluded also.

Table XXI-5 has a complete list of the kinds of business included in the Census of Retail Trade. The user of this Abstract might find this list helpful in using Tables XXI-10 through XXI-12 and XXI-14 through XXI-16 in this chapter which pertain to kind-of-business groups. With the exception of gasoline service stations, all County Census of Retail Trade statistics are compiled only for kind-of-business groups and not for the individual kinds of business themselves. Additional detail for Michigan's Standard Metropolitan Statistical Areas, counties with 500 establishments or more, and cities with 500 establishments or more are available from the Census of Retail Trade, 1972, but are not reproduced here.

Monthly Retail Trade, another publication of the United States Bureau of the Census, is based upon reports from a sample of establishments in the United States. Separate data on sales volume also are available for large states and Standard Metropolitan Statistical Areas. Department store sales figures are published for several large and small Standard Metropolitan Statistical Areas, and for several cities, but not for states. Michigan data from the annual summary issues of Monthly Retail Trade are reproduced in Tables XXI-19 and XXI-20.

The Bureau of Environmental Health of the Michigan Department of Public Health is responsible for enforcing Michigan law relative to food service establishments and vending machines from which are dispensed perishable foods and beverages. Statistics collected as a by-product are presented in Table XXI-17.

Michigan's Liquor Control Commission has a monopoly on the wholesaling of liquor (but not beer and wine) in the state. They also license all retail outlets for on or off premises consumption of liquor, wine, and beer. The number of licenses issued during the most recent licensing year are shown in Table XXI-18.

In previous years the Michigan Department of Treasury released compilations of sales tax collections by kind of business classification, county, and large city. That program was cancelled because of budget constraints within the Department. Also the data were of questionable statistical validity.

National Petroleum News, a McGraw Hill, Inc. publication, publishes a variety of information about branded gasoline service stations in its mid-May Fact Book issue. Some very small independent organizations are not listed in the Fact Book, however.

Four analytical tables, Tables XXI-13, XXI-14, XXI-15, and XXI-16, are by-products of another research project conducted by the Division of Research, Graduate School of Business Administration, Michigan State University. Two others, Tables XXI-8 and XXI-9, were developed from the personal income data released by the Bureau of Economic Analysis of the U.S. Department of Commerce. Personal income statistics are discussed in Chapter VI.

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TABLE XXI-1. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN: 1947, 1954, 1958, 1963, 1967, AND 1977

	All establishments[a]		Establishments with payroll			
Year	Number	Sales ($1,000,000)	Number	Sales ($1,000,000)	Annual payroll ($1,000,000)	Pail employees[b] (000)
1947[c]	68,756	5,950	n.a.	n.a.	663	311
1947	65,990	5,854	48,040	5,477	n.a.	n.a.
1954	67,995	8,168	50,331	7,776	879	325
1958	72,379	8,898	52,291	8,471	946	337
1963	69,758	10,855	51,568	10,431	1,110	340
1967	63,569	14,114	46,921	13,667	1,553	398
1972[d]	72,413	20,938	49,729	20,301	2,412	466
1972[e]	71,795	20,630	49,111	19,993	2,383	462
1977[e]	67,059	31,912	n.a.	n.a.	3,720	524

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 1 and 7; and Bureau of the Census, U.S. Census of Business, 1967, Retail Trade, Michigan (Washington, D.C.: 1969), BC67-RA24, Table 2, and similar census documents for 1963 (BC63-RA24, Table 2), 1958 (BC58-RA22, Table 101), 1954 (R-1-22, Tables 101 and 101A), and 1948 (vol. 3 Michigan section, Table 101); and Bureau of the Census, 1977 Economic Censuses, Advance Report, Geographic Area Statistics, 1977 Census of Retail Trade, RC77-A-23 (A) (Washington, D.C.: 1979), Table 1.

a. Excludes establishments with no paid employment and with annual sales volume less than $2,500.
b. Week including 15 November for 1947-1963; week including 12 March for 1967.
c. Unrevised statistics. Based upon reports from establishments with sales volume of $500 or over.
d. Based on 1967 Standard Industrial Classification.
e. Based on 1972 Standard Industrial Classification.
n.a.: not available.

TABLE XXI-2. SUMMARY ADVANCE STATISTICS FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1977

Kind of business[a]	All establishments[b]	Sales[b] ($000)	Payroll entire yr. ($000)	Paid employees for wk. including 12 March	Percentage change 1972 - 1977	
					Sales[c]	Payroll entire year
Bldg. materials, hardware, garden supply, & mobile home dealers	3,712	1,683,382	188,736	18,839	47.1	47.6
Bldg. materials & supply stores	1,562	1,096,039	120,393	10,408	52.8	42.0
Hardware stores	1,316	347,831	43,076	5,855	53.6	66.4
General merchandise group stores	1,372	4,381,137	629,750	79,179	49.6	64.2
Department stores[d]	319	3,885,615	567,784	68,180	55.8	74.8
Variety stores	546	257,009	37,528	7,249	- 5.7	- 6.9
Misc. general merchandise stores	507	238,513	24,438	3,750	46.7	33.1
Food stores	9,033	6,607,773	622,832	71,261	40.3	56.4
Grocery stores	5,993	6,110,863	558,991	58,974	39.1	57.0
Automotive dealers	4,970	7,432,738	610,234	45,478	68.6	52.6
Motor vehicle dealers--new & used cars	1,174	6,290,913	486,762	33,285	71.0	50.7
Motor vehicle dealers--used cars only	1,083	217,539	11,885	1,109	59.2	69.4
Auto & home supply stores	1,619	489,732	72,971	7,293	68.8	66.8
Gasoline service stations	6,572	2,590,860	161,320	30,309	74.9	21.4
Apparel & accessory stores	4,649	1,641,875	237,514	36,997	51.2	53.6
Men's & boys' clothing & furnishings stores	876	363,486	60,002	7,209	30.6	43.3
Women's ready-to-wear stores	1,410	672,123	94,748	16,251	49.6	53.1
Family clothing stores	608	240,129	29,439	5,639	95.5	78.3
Shoe stores	1,037	254,746	36,516	5,032	43.7	41.9
Furniture, home furnishings, & equipment stores	5,042	1,491,082	198,382	20,337	47.8	42.5
Furniture & home furnishings stores	2,872	816,109	123,430	11,937	44.8	41.8

TABLE XXI-2. SUMMARY ADVANCE STATISTICS FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1977 (cont.)

Kind of business[a]	All establishments[b]	Sales[b] ($000)	Payroll entire yr. ($000)	Paid employees for wk. including 12 March	Percentage change 1972 - 1977 Sales[c]	Percentage change 1972 - 1977 Payroll entire year
Household appliance stores	661	273,853	28,063	2,898	23.3	16.2
Radio, television, & music stores	1,509	401,120	46,889	5,502	79.9	67.5
Eating & drinking places	13,836	2,695,997	647,993	161,750	67.5	71.2
Eating places	9,594	2,247,666	567,499	142,198	83.8	82.4
Drinking places (alcoholic beverages)	4,242	448,331	80,494	19,552	15.9	19.6
Drug stores & proprietary stores	1,899	1,050,132	136,155	18,657	39.7	41.5
Miscellaneous retail stores[e]	15,974	2,337,380	287,181	40,742	65.2	66.4
Liquor stores	941	278,188	17,467	3,210	46.6	84.4
Miscellaneous shopping goods stores	6,370	871,308	112,502	17,767	70.4	79.3
Sporting goods stores & bicycle shops	1,545	237,380	27,019	3,377	61.8	79.0
Jewelry stores	1,093	203,247	32,483	4,105	65.0	78.8
Nonstore retailers[e]	1,177	472,143	69,956	8,095	49.4	52.1
Fuel & ice dealers	551	250,703	23,068	2,440	115.2	43.1
Florists	1,023	100,234	19,662	3,467	45.2	50.5
Retail trade[e]	67,059	31,912,356	3,720,097	523,549	55.3	56.1

SOURCE: Bureau of the Census, 1977 Economic Censuses, Advance Report, Geographic Area Statistics, 1977 Census of Retail Trade, RC77-A-23(A) (Washington, D.C.: 1979), Table 1.

Note: Percentages are based on current dollars for both 1972 and 1977 with no adjustment for price increases.

a. All kind-of-business classifications are not shown separately; therefore, detail does not add to total.
b. For all establishments, including those with no payroll.
c. Sales taxes and finance charges were included in 1972 but not in 1977.
d. Includes sales from catalog order desks.
e. Excludes nonemployer direct sellers.

TABLE XXI-3. MICHIGAN EMPLOYMENT OF SELECTED MAJOR DEPARTMENT STORE CHAINS: 1976 - 1978

Chain	1976	1977	1978
K-Mart	28,700[a]	35,300[a]	37,600[a]
Dayton-Hudson	14,929[b]	16,376[b]	16,297[b]
Sears Roebuck	15,113[c]	14,674[c]	15,500[c]
J. C. Penney	12,595[d]	14,084[d]	16,577[d]
Meijer	10,500[a]	11,600[a]	12,000[a]
Montgomery Ward	n.a.	7,152[b]	n.a.
F. W. Woolworth	n.a.	n.a.	1,600[a]

SOURCE: The various companies.

a. Approximate annual averages.
b. Annual averages.
c. September - August fiscal year averages.
d. Year-end figures.

n.a.: not available.

TABLE XXI-4. LARGEST TEN MICHIGAN COUNTIES AND CITIES RANKED BY VOLUME OF RETAIL SALES: 1977

County and city	Rank	Retail sales ($000)
Wayne	1	7,834,951
Oakland	2	4,528,678
Macomb	3	2,702,797
Genesee	4	1,817,915
Kent	5	1,733,723
Ingham	6	1,000,941
Washtenaw	7	981,126
Saginaw	8	848,317
Kalamazoo	9	798,370
Berrien	10	601,021
Detroit	1	2,968,783
Dearborn	2	778,779
Southfield	3	778,169
Grand Rapids	4	756,703
Warren	5	702,221
Flint	6	688,143
Lansing	7	628,893
Livonia	8	616,067
Troy	9	568,439
Ann Arbor	10	499,241

SOURCE: Bureau of the Census, 1977 Economic Censuses, Advance Report Geographic Area Statistics, 1977 Census of Retail Trade, RC77-A-23(A) (Washington, D.C.: 1979), Table 2.

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Building materials, hardware, garden supply, and mobile home dealers							
Building materials and supply stores	1,557	717,071	1,287	707,030	84,757	19,323	9,953
Lumber and other building materials dealers	(b)	(b)	948	655,499	76,327	17,200	8,664
Paint, glass, and wallpaper stores	(b)	(b)	339	51,531	8,430	2,123	1,289
Hardware stores	1,327	226,491	979	212,164	25,884	5,812	4,918
Retail nurseries, lawn, garden supply stores	252	60,183	147	57,434	7,121	1,352	1,152
Mobile home dealers	441	140,429	307	132,976	10,079	2,229	1,472
TOTAL	3,577	1,144,174	2,720	1,109,604	127,841	28,716	17,495
General merchandise group stores							
Department stores	346	2,494,147	346	2,494,147	324,757	73,067	60,042
Variety stores	712	272,666	626	270,265	40,300	8,962	9,634
Miscellaneous general merchandise stores	559	162,621	394	156,948	18,356	4,078	3,958
TOTAL	1,617	2,929,434	1,366	2,921,360	383,413	86,107	73,634
Food stores							
Grocery stores	6,634	4,393,783	4,890	4,289,122	355,968	83,688	60,809
Meat, fish (seafood) markets, incl. freezer provisioners	490	106,974	359	101,051	10,409	2,429	2,003
Freezer and locker meat provisioners	(b)	(b)	35	12,946	1,655	412	326

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	Paid employees 12 March[a]
Food stores (cont.)							
Meat markets	(b)	(b)	287	83,337	8,351	1,922	1,568
Fish (seafood) markets	(b)	(b)	37	4,768	403	95	109
Fruit stores and vegetable markets	411	41,834	205	36,888	3,164	533	641
Candy, nut, and confectionery stores	540	33,160	299	28,454	5,605	1,337	1,616
Retail bakeries	1,048	82,806	902	78,371	18,866	4,500	5,672
Retail bakeries, baking and selling	(b)	(b)	596	53,220	13,461	3,614	4,711
Retail bakeries, selling only	(b)	(b)	306	25,151	3,405	886	961
Other food stores	694	51,443	331	36,441	4,171	921	1,370
Dairy pro. stores	(b)	(b)	229	23,146	2,642	604	1,044
Miscellaneous food stores	(b)	(b)	102	13,295	1,529	317	326
TOTAL	9,817	4,710,000	6,986	4,570,327	393,183	93,408	72,111
Automotive dealers							
Motor vehicle dealers, new and used cars	1,236	3,678,554	1,197	3,675,715	322,999	77,229	31,615
Dealers with domestic car franchise only	(b)	(b)	895	2,651,892	228,419	55,060	22,595
Dealers with imported car franchise only	(b)	(b)	100	134,576	19,073	4,610	1,920
Dealers with both	(b)	(b)	202	889,247	75,507	17,559	7,100
Motor vehicle dealers, used cars only	1,	136,665	400	106,095	7,017	1,621	1,033

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Automotive dealers (cont.)							
Auto and home supply stores	1,303	290,139	953	279,096	43,742	9,836	6,061
Tire, battery, and accessory dealers	(b)	(b)	818	238,856	39,118	8,788	5,353
Other auto and home supply stores	(b)	(b)	135	40,240	4,624	1,048	708
Miscellaneous automotive dealers	1,024	303,841	674	290,966	26,185	5,322	3,573
Boat dealers	(b)	(b)	238	91,387	8,587	1,761	1,225
Recreational and utility trailer dealers	(b)	(b)	145	76,938	5,445	1,140	702
Motorcycle dealers	(b)	(b)	171	94,085	9,565	1,860	1,276
Automotive dealers N.E.C.	(b)	(b)	120	28,556	2,588	561	370
TOTAL	4,572	4,409,199	3,224	4,351,872	399,943	94,008	42,282
Gasoline service stations							
TOTAL	8,919	1,481,565	7,588	1,417,276	132,880	32,304	33,524
Apparel and accessory stores							
Women's clothing, specialty, furriers	1,466	483,980	1,258	479,353	67,067	15,849	15,699
Women's ready-to-wear stores	1,116	449,242	1,010	446,229	61,877	14,628	14,569
Women's accessory and specialty stores	296	23,297	212	21,949	3,352	722	866

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Apparel and accessory stores (cont.)							
Millinery stores	(b)	(b)	37	2,620	445	118	123
Corset and lingerie stores	(b)	(b)	13	1,124	130	33	45
Other women's accessory specialty stores	(b)	(b)	162	18,205	2,777	621	698
Furriers and fur shops	54	11,441	36	11,175	1,838	449	264
Men's and boy's clothing, furnishing stores	872	278,283	808	275,751	41,857	9,943	7,183
Family clothing stores	565	122,829	395	119,318	16,513	3,609	3,838
Shoe Stores	995	177,253	908	174,969	25,736	6,010	5,156
Men's shoe stores	(b)	(b)	134	25,530	3,246	743	547
Women's shoe stores	(b)	(b)	172	37,921	6,250	1,491	1,293
Children's shoe stores	(b)	(b)	27	3,724	625	129	99
Family shoe stores	(b)	(b)	575	107,794	15,615	3,647	3,217
Other apparel and accessory stores	309	23,886	217	21,968	3,443	828	849
Children's and infants' wear stores	(b)	(b)	109	12,879	1,770	442	489
Miscellaneous apparel and accessory stores	(b)	(b)	108	9,089	1,673	386	360
TOTAL	4,207	1,086,231	3,586	1,071,359	154,616	36,239	32,725
Furniture, home furnishings, and equipment stores							
Furniture and home furnishings stores	2,410	563,539	1,690	543,868	87,059	19,858	11,695
Furniture stores	1,179	382,833	945	374,847	61,286	14,000	7,919
Home furnishings	1,231	180,706	745	169,021	25,773	5,858	3,776

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Furniture (cont.)							
Floor covering stores	(b)	(b)	425	120,813	17,798	4,010	2,209
Drapery, curtain, and upholstery stores	(b)	(b)	178	24,134	4,282	1,011	839
Miscellaneous home furnishings stores	(b)	(b)	142	24,074	3,693	837	728
Household appliance stores	819	222,177	622	215,310	24,149	5,594	3,344
Radio, television, and music stores	1,290	222,952	843	209,944	27,998	7,002	4,551
Radio and television	(b)	(b)	514	136,740	16,439	4,014	2,532
Music stores	(b)	(b)	329	73,204	11,559	2,988	2,019
Record shops	(b)	(b)	93	14,586	1,552	385	349
Musical instrument stores	(b)	(b)	236	58,618	10,007	2,603	1,670
TOTAL	4,519	1,008,668	3,155	969,122	139,206	32,454	19,590
Eating and drinking places							
Eating places	8,998	1,223,085	8,026	1,198,109	311,093	70,112	97,154
Restaurants and lunchrooms	(b)	(b)	4,136	651,436	176,886	39,949	55,618
Cafeterias	(b)	(b)	284	60,371	16,283	3,968	5,510
Refreshment places	(b)	(b)	2,893	367,502	81,371	17,409	26,853
Other eating places	(b)	(b)	713	118,800	36,553	8,786	9,173
Drinking places (alcoholic beverages	4,990	386,828	4,356	365,892	67,314	15.926	20,136
TOTAL	13,988	1,609,913	12,382	1,564,001	378,407	86,038	117,290

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
	Number	Sales ($1,000)	Number	Sales ($1,000)	Payroll ($1,000) Entire year	Payroll ($1,000) First quarter	Paid employees 12 March[a]
Drug stores and proprietary stores							
Drug stores	(b)	(b)	1,762	709,377	92,877	22,605	18,956
Proprietary stores	(b)	(b)	127	38,094	3,352	814	828
TOTAL	1,970	751,939	1,889	747,471	96,229	23,419	19,784
Miscellaneous retail stores							
Liquor stores	775	189,793	645	180,244	9,471	2,263	2,578
Used merchandise stores	1,017	47,216	375	36,449	6,794	1,557	1,345
Nonstore retailers	7,032	400,147	716	305,782	46,000	10,973	7,627
Mail-order houses	231	90,033	171	88,725	8,680	2,067	1,998
Automatic merchandising machine operators	568	159,961	253	151,010	24,679	5,999	3,452
Direct selling	6,233	150,153	292	66,047	12,641	2,907	2,177
Fuel and ice dealers	464	116,519	364	113,523	16,124	4,370	2,323
Fuel oil dealers	(b)	(b)	166	61,510	7,103	2,027	1,011
Liquefied petroleum bottled gas dealers	(b)	(b)	154	46,739	8,269	2,170	1,177
Fuel and ice dealers, N.E.C	(b)	(b)	44	5,274	752	173	135
Florists	878	69,010	613	63,662	13,065	3,021	2,896
Cigar stores and stands	142	12,313	104	11,136	1,507	343	429
Miscellaneous shopping goods stores	4,793	511,314	2,631	468,506	62,738	14,127	13,403
Sporting goods stores and bicycle shops	1,215	146,755	637	130,874	15,094	3,265	2,631
General line sporting goods stores			443	89,773	10,676	2,411	1,855
Specialty line sporting goods stores			194	41,101	4,418	854	776

TABLE XXI-5. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Miscellaneous retail stores (cont.)							
Book stores	286	38,032	189	35,600	4,797	1,180	1,173
Stationery stores	171	21,153	141	20,450	3,381	817	825
Jewelry stores	819	123,210	541	116,581	18,163	4,151	3,249
Hobby, toy, and game shops	512	38,682	167	33,404	3,600	731	727
Camera and photographic supply stores	132	35,702	104	34,753	4,174	996	733
Gift, novelty, and souvenir shops	910	43,322	481	36,656	5,098	1,022	1,416
Luggage and leather goods	58	8,732	46	8,596	1,403	327	279
Sewing, needlework, and piece goods stores	690	55,726	325	51,592	7,028	1,638	2,370
Other miscellaneous retail stores	3,508	152,873	767	91,555	16,913	3,883	2,809
News dealers and newstands	(b)	(b)	65	7,253	743	177	209
Pet shops	(b)	(b)	77	6,997	1,070	259	277
Typewriter stores	(b)	(b)	33	5,214	1,106	259	196
Optical goods stores	(b)	(b)	197	23,691	6,040	1,403	766
Other retail stores, N.E.C.	(b)	(b)	395	48,400	7,954	1,690	1,361
TOTAL	18,609	1,499,185	6,215	1,270,857	172,612	40,537	33,410
TOTAL RETAIL TRADE	71,795	20,630,308	49,111	19,993,249	2,383,330	553,230	461,845

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table I.

a. Week including 12 March.

b. Data not provided because establishments with no payroll are classified only at the next broader kind-of-business level.

N.E.C.: not elsewhere classified.

TABLE XXI-6. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972

County	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Alcona	103	13,237	63	11,940	1,001	208	183
Alger	118	13,888	88	13,219	1,251	270	319
Allegan	623	117,669	394	111,481	11,341	2,521	2,387
Alpena	352	83,744	258	81,129	8,921	2,065	1,754
Antrim	179	23,867	117	22,354	2,462	482	438
Arenac	181	26,432	110	24,144	2,293	494	491
Baraga	95	13,469	69	12,867	1,169	239	260
Barry	305	47,784	189	45,189	4,765	1,115	999
Bay	1,056	275,360	707	265,767	29,812	6,891	6,114
Benzie	151	19,404	105	17,994	1,837	355	382
Berrien	1,642	381,518	1,086	366,673	43,005	9,844	9,203
Branch	368	77,758	238	74,898	7,594	1,757	1,554
Calhoun	1,273	326,609	886	317,329	39,741	9,165	7,959
Cass	357	57,751	226	53,898	6,034	1,359	1,387
Charlevoix	252	33,605	174	31,579	3,396	724	701
Cheboygan	292	51,656	220	49,363	5,469	977	1,041
Chippewa	390	66,714	252	61,370	6,890	1,467	1,405
Clare	290	42,901	203	40,334	4,315	873	863
Clinton	351	74,127	225	70,705	6,677	1,524	1,341
Crawford	112	19,832	84	18,691	1,814	382	382
Delta	402	84,832	296	81,761	8,244	1,911	1,892
Dickinson	300	61,058	211	58,652	6,041	1,389	1,324
Eaton	651	190,601	436	186,482	19,693	4,573	4,230
Emmet	361	73,267	274	71,252	8,801	1,888	1,618
Genesee	3,358	1,108,533	2,378	1,084,339	129,485	29,972	24,499

TABLE XXI-6. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Gladwin	161	25,620	107	23,734	2,198	418	476
Gogebic	274	43,688	187	41,340	4,180	983	1,064
Grand Traverse	553	149,747	386	145,919	18,243	3,959	3,201
Gratiot	416	83,581	265	79,596	8,479	1,986	1,821
Hillsdale	372	60,864	203	55,457	6,314	1,464	1,335
Houghton	398	66,023	260	62,189	6,209	1,397	1,460
Huron	463	68,640	296	63,603	6,131	1,443	1,346
Ingham	1,959	666,457	1,413	654,545	83,278	19,227	17,145
Ionia	432	79,443	282	75,845	7,406	1,718	1,628
Iosco	366	56,636	260	53,376	5,794	1,197	1,149
Iron	202	27,929	141	26,520	2,511	561	644
Isabella	326	82,019	240	79,941	9,348	2,096	2,040
Jackson	1,209	320,205	847	311,575	38,126	9,140	7,546
Kalamazoo	1,556	479,216	1,100	468,747	61,159	14,427	12,861
Kalkaska	89	12,770	57	11,391	1,206	213	225
Kent	3,536	1,119,875	2,390	1,090,137	129,982	30,537	27,487
Keweenaw	44	1,926	23	1,507	155	21	26
Lake	97	8,185	54	6,719	757	136	201
Lapeer	368	92,160	247	89,034	8,173	1,889	1,737
Leelanau	157	17,530	103	16,505	1,695	305	280
Lenawee	876	207,465	597	200,169	22,393	5,090	4,603
Livingston	480	110,877	301	105,193	11,347	2,553	2,207
Luce	68	12,495	50	12,219	1,169	259	226
Mackinac	228	23,846	168	22,560	2,495	367	393
Macomb	3,999	1,526,197	2,743	1,489,171	168,274	39,289	31,506

TABLE XXI-6. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Manistee	271	42,184	197	40,521	4,148	901	910
Marquette	535	110,761	390	106,167	12,252	2,832	2,959
Mason	283	59,145	197	57,087	5,696	1,254	1,203
Mecosta	279	52,954	174	49,714	5,645	1,316	1,272
Menominee	254	36,657	160	34,620	3,249	737	770
Midland	482	137,811	346	135,161	15,242	3,543	2,887
Missaukee	91	11,032	51	9,818	800	177	213
Monroe	813	198,519	523	191,006	21,846	5,156	4,385
Montcalm	448	93,328	285	89,412	8,605	1,936	1,784
Montmorency	105	11,417	62	9,972	1,035	210	228
Muskegon	1,182	333,467	829	325,052	36,455	8,152	7,556
Newaygo	307	44,185	204	41,414	4,142	862	895
Oakland	7,357	2,696,655	4,682	2,620,103	323,886	75,650	58,201
Oceana	213	31,073	137	28,608	2,563	513	581
Ogemaw	178	34,579	122	32,725	3,679	784	676
Ontonogan	132	19,750	86	18,207	1,702	401	409
Osceola	181	23,645	115	21,358	2,234	503	503
Oscoda	74	7,415	49	6,592	721	155	175
Otsego	167	36,092	122	34,404	4,187	887	773
Ottawa	940	243,085	651	235,237	24,450	5,644	5,517
Presque Isle	162	24,371	110	22,703	2,021	432	442
Roscommon	312	37,873	211	35,168	3,904	729	706
Saginaw	1,651	516,065	1,184	503,223	62,724	14,362	12,148
St. Clair	1,120	257,497	741	246,529	28,730	6,643	5,705
St. Joseph	527	102,634	345	97,124	10,390	2,451	2,304

TABLE XXI-6. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 (cont.)

County	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	12 March
Sanilac	394	61,666	251	57,093	5,002	1,094	1,071
Schoolcraft	140	17,475	96	16,176	1,514	305	340
Shiawassee	544	121,260	355	115,610	12,186	2,948	2,616
Tuscola	491	84,583	329	79,963	7,694	1,713	1,543
Van Buren	533	105,846	345	100,822	10,350	2,306	2,114
Washtenaw	1,639	599,139	1,187	587,377	75,450	17,852	14,106
Wayne	17,629	5,787,313	12,364	5,623,985	705,374	166,295	130,334
Wexford	270	61,822	202	59,896	6,181	1,357	1,210
TOTAL	71,795	20,630,308	49,111	19,993,249	2,383,330	553,230	461,845

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

a. Week including 12 March.

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	Paid employees 12 March[a]
Adrian	297	93,511	235	91,721	11,545	2,671	2,469
Albion	124	36,438	107	36,038	3,891	853	744
Algonac	52	11,991	37	11,397	1,368	304	269
Allegan	98	24,795	67	24,027	2,335	588	477
Allen Park	262	70,034	192	68,044	7,885	1,878	1,890
Alma	165	47,750	120	46,262	5,068	1,182	1,008
Alpena	258	69,396	216	68,273	7,737	1,799	1,554
Ann Arbor	728	280,654	544	276,013	39,084	9,357	7,360
Bad Axe	84	18,485	65	17,916	1,952	438	387
Battle Creek	536	171,380	377	168,131	21,856	5,065	4,110
Bay City	579	140,825	415	136,586	17,098	4,042	3,521
Belding	42	9,670	30	9,351	1,000	264	202
Benton Harbor	336	103,791	219	100,758	11,984	2,729	2,248
Berkley	154	25,802	102	23,993	3,610	843	819
Bessemer	39	7,138	27	6,790	595	137	155
Beverly Hills	77	15,179	32	14,065	2,088	468	407
Big Rapids	133	32,264	100	31,489	3,716	852	854
Birmingham	318	161,127	240	158,657	22,487	5,452	3,707
Blissfield	61	11,546	43	11,116	1,149	275	283
Bloomfield Hills	92	22,219	62	21,152	3,074	746	716
Boyne City	66	9,757	47	9,300	903	192	185
Buchanan	66	17,360	49	16,956	1,648	393	307
Barton	114	33,226	66	31,976	3,689	821	789
Cadillac	191	50,703	153	49,522	5,303	1,170	1,014
Caro	93	21,156	78	20,842	2,133	481	439

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Center Line	72	52,389	60	51,969	5,250	1,275	775
Charlevoix	105	15,138	77	14,333	1,591	325	309
Charlotte	146	35,582	110	35,078	3,740	909	757
Cheboygan	131	29,667	101	28,785	2,839	608	613
Chelsea	65	18,880	49	18,538	2,004	462	366
Chesaning	68	14,956	45	14,361	1,303	296	285
Clare	116	20,881	87	19,920	2,299	487	435
Clawson	124	38,583	80	37,508	5,259	1,270	1,079
Coldwater	162	42,789	126	42,046	4,493	1,012	905
Corunna	42	5,869	18	4,933	396	109	108
Davison	88	24,978	58	24,555	2,668	611	470
Dearborn	920	421,498	678	414,113	54,052	12,773	9,687
Dearborn Heights	422	108,539	292	104,977	12,529	2,932	2,682
Detroit	9,768	2,724,228	6,945	2,631,696	343,003	82,188	62,811
Dowagiac	145	23,950	92	22,081	2,606	562	653
Durand	53	9,582	36	9,140	933	235	183
East Detroit	305	101,930	207	98,821	10,758	2,599	2,085
East Grand Rapids	69	13,243	37	12,461	1,685	435	383
East Lansing	231	53,753	164	52,476	7,449	1,775	1,902
Eaton Rapids	95	16,057	61	15,370	1,665	379	360
Ecorse	117	18,413	83	17,138	2,459	597	540
Escanaba	233	62,804	192	61,533	6,576	1,518	1,448
Essexville	38	2,752	27	2,615	252	62	86
Farmington	224	61,787	153	60,187	7,758	1,826	1,449
Fenton	149	45,228	91	43,886	4,451	1,008	731

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Ferndale	272	109,144	202	106,998	12,589	2,915	1,877
Flat Rock	67	20,953	53	20,653	2,283	504	417
Flint	1,627	555,200	1,269	545,446	68,341	16,291	13,129
Flushing	74	22,642	50	22,273	2,282	555	343
Frankenmuth	56	21,290	42	20,673	3,328	677	834
Franklin	28	2,186	12	1,413	204	49	56
Fraser	111	24,500	67	23,590	2,897	738	577
Fremont	111	23,023	73	22,134	2,327	490	401
Garden City	220	85,744	150	82,984	8,414	1,830	1,443
Gaylord	102	26,003	87	25,501	3,425	728	633
Gibraltar	15	1,353	9	(D)	(D)	(D)	(D)
Gladstone	85	12,482	54	11,647	1,036	252	292
Grand Blanc	90	34,065	66	33,569	4,003	904	856
Grand Haven	183	49,365	133	48,065	5,514	1,289	1,214
Grand Ledge	87	10,232	48	9,183	1,203	283	284
Grand Rapids	1,695	533,190	1,177	519,423	65,991	15,784	13,768
Grandville	109	33,611	64	32,633	3,256	687	645
Greenville	105	21,737	85	21,490	2,497	591	548
Grosse Pointe	104	37,934	63	36,664	5,576	1,346	955
Grosse Pte. Farms	116	35,090	61	33,816	4,641	1,126	724
Grosse Pte. Park	96	30,517	51	29,380	2,897	727	423
Grosse Pte. Shores	39	1,172	1	(D)	(D)	(D)	(D)
Grosse Pte. Woods	189	47,843	114	45,552	5,152	1,295	1,064
Hamtramck	335	64,250	245	61,673	7,606	1,831	1,359
Hancock	83	19,046	57	18,163	1,859	425	376

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Harper Woods	210	144,117	121	141,505	16,518	3,717	3,067
Hartford	59	8,245	40	7,909	844	178	165
Hastings	114	29,072	86	28,477	3,059	762	564
Hazel Park	171	46,215	120	44,336	5,857	1,354	1,185
Highland Park	272	104,471	203	102,494	14,261	3,264	2,420
Hillsdale	149	39,142	90	37,805	4,215	966	853
Holland	397	101,330	292	98,399	10,290	2,402	2,267
Holly	77	15,675	54	15,335	1,317	294	262
Houghton	79	16,111	56	15,480	1,847	420	506
Howell	117	35,930	83	34,802	3,530	821	664
Hudson	64	8,876	40	8,498	797	191	212
Hudsonville	28	7,108	21	6,982	660	122	102
Huntington Woods	45	5,958	14	5,142	487	135	80
Inkster	159	45,706	122	44,756	5,045	1,204	1,037
Ionia	136	34,198	108	33,399	3,304	764	717
Iron Mountain	158	37,332	110	35,970	4,057	954	859
Iron River	99	18,234	73	17,609	1,799	404	422
Ironwood	157	30,939	113	29,693	3,124	726	740
Ishpeming	121	24,555	88	23,348	2,418	568	604
Ithaca	64	10,922	41	10,279	1,034	254	205
Jackson	581	174,544	435	170,750	22,655	5,627	4,395
Kalamazoo	783	271,735	587	266,981	37,043	8,892	7,426
Keego Harbor	27	3,121	22	2,922	490	105	139
Kentwood	131	64,685	88	63,404	8,460	1,918	1,675
Kingsford	48	14,098	38	13,724	1,258	271	274

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	Paid employees 12 March[a]
Lake Orion	75	19,356	38	18,220	1,705	419	277
L'Anse	51	9,522	44	9,419	854	176	178
Lansing	1,161	435,929	858	429,569	55,815	12,766	10,889
Lapeer	111	50,701	92	50,273	4,876	1,145	925
Lathrup Village	152	45,523	80	43,533	5,962	1,278	1,042
Laurim	30	4,407	20	4,194	412	97	84
Lincoln Park	368	187,157	276	184,386	23,122	5,477	4,408
Livonia	731	398,749	508	393,374	51,248	11,593	9,306
Lowell	76	18,056	53	17,536	1,753	371	285
Ludington	148	31,370	113	30,444	3,292	748	728
Madison Heights	249	80,688	168	78,198	9,921	2,404	2,043
Manistee	140	25,909	114	25,329	2,652	636	655
Manistique	95	14,993	67	14,238	1,357	270	304
Marine City	81	15,582	56	14,772	1,507	366	330
Marquette	242	61,327	184	59,573	7,500	1,734	1,722
Marysville	45	9,170	35	8,980	879	196	178
Marshall	159	28,834	109	27,436	3,227	782	800
Mason	89	16,688	52	16,050	1,726	422	348
Melvindale	83	33,304	63	32,718	3,257	753	652
Menominee	143	27,379	96	26,496	2,587	585	594
Midland	402	127,756	286	125,516	14,374	3,342	2,647
Milan	68	16,423	44	15,787	1,494	341	257
Milford	75	20,250	53	19,388	1,902	456	320
Monroe	363	122,269	257	118,779	14,338	3,375	2,690
Mount Clemens	304	103,023	214	100,552	10,814	2,660	1,921

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Mount Morris	77	17,679	46	16,746	1,656	401	292
Mount Pleasant	216	60,317	162	59,076	7,482	1,677	1,647
Muskegon	425	130,019	309	126,669	16,138	3,639	3,201
Muskegon Heights	153	32,221	118	31,322	3,797	869	799
Munising	79	10,834	63	10,618	1,040	230	267
Negaunee	68	10,244	47	9,771	936	209	254
New Baltimore	72	12,154	50	11,588	1,138	246	211
New Buffalo	53	6,628	40	6,400	860	179	259
Niles	281	67,511	180	65,157	7,647	1,772	1,573
North Muskegon	44	7,511	28	7,181	813	200	173
Northville	93	26,079	63	25,256	2,813	657	628
Norton Shores	123	61,787	83	61,051	5,571	1,170	1,129
Norway	51	5,645	38	5,323	428	101	125
Novi	73	13,884	39	13,010	1,192	270	287
Oak Park	390	108,802	202	102,863	12,835	3,043	2,335
Otsego	46	7,325	34	6,978	853	204	218
Owosso	224	47,491	173	46,039	5,832	1,344	1,339
Oxford	57	8,051	39	7,633	834	188	198
Paw Paw	62	16,220	51	16,070	1,784	375	350
Petoskey	213	57,696	176	56,946	6,806	1,483	1,220
Plainwell	94	13,477	57	12,589	1,490	317	341
Pleasant Ridge	27	3,385	16	3,236	566	129	103
Plymouth	166	54,032	118	52,726	5,796	1,518	988
Pontiac	544	224,606	410	219,869	27,309	6,470	4,738
Portage	260	92,771	187	91,116	10,890	2,533	2,389

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees 12 March[a]
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Port Huron	456	130,714	334	127,667	16,859	3,904	3,252
Portland	62	10,455	38	9,910	960	219	223
Richmond	84	22,799	52	21,955	1,846	464	315
River Rouge	111	16,607	85	15,674	1,776	415	402
Riverview	77	18,744	54	18,386	2,583	640	707
Rochester	170	47,569	123	45,836	5,550	1,282	1,164
Rockwood	22	2,343	14	2,204	166	38	51
Rogers City	72	12,753	55	12,331	1,195	274	266
Romeo	81	11,047	47	10,103	1,004	246	225
Romulus	145	28,643	85	26,863	5,602	1,384	1,144
Roosevelt Park	32	16,033	23	15,953	2,034	455	517
Roseville	406	224,489	285	221,229	27,880	6,587	5,143
Royal Oak	681	214,804	469	208,895	28,036	6,742	4,889
Saginaw	748	211,031	549	205,448	26,837	6,366	5,029
St. Clair	88	18,471	61	17,518	1,854	402	347
St. Clair Shores	547	148,968	357	142,993	16,203	3,749	3,360
St. Ignace	70	10,278	60	10,117	1,087	170	163
St. Johns	108	28,251	77	27,263	2,785	613	560
St. Joseph	192	30,134	131	28,514	4,107	974	1,006
St. Louis	65	7,834	36	7,368	831	189	204
Saline	50	13,451	37	13,225	1,572	373	330
Sault Ste. Marie	224	53,770	159	50,126	5,621	1,222	1,116
Southfield	712	419,386	423	410,494	47,258	10,890	8,401
Southgate	251	171,951	200	170,143	18,547	4,473	3,159
South Haven	97	31,377	79	30,677	3,202	705	619

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	Paid employees 12 March[a]
Wyandotte	290	72,373	218	69,962	8,725	2,125	1,744
Wyoming	579	199,643	439	196,046	24,146	5,577	5,354
Ypsilanti	256	71,159	189	68,953	9,153	2,165	1,843
Zeeland	64	13,501	48	12,732	1,337	313	358

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

a. Week including 12 March.

D: Data withheld to avoid disclosing figures for individual companies.

TABLE XXI-8. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in retail trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Clare	23.54	9,765	23.67	11,182
Roscommon	23.22	6,940	22.64	7,855
Cheboygan	19.32	10,694	20.32	12,633
Mackinac	16.57	5,433	17.19	6,195
Schoolcraft	16.69	4,376	16.61	4,801
Crawford	16.50	4,235	16.5[a]	4,700[a]
Emmet	15.98	13,904	16.41	16,183
Missaukee	15.77	2,609	16.35	3,010
Montmorency	16.17	2,368	16.30	2,826
Ogemaw	16.25	5,831	16.18	6,404
Gladwin	16.81	4,820	15.94	5,202
Grand Traverse	14.51	34,251	15.56	42,561
Lake	15.74	1,802	15.46	1,936
Livingston	16.30	28,775	15.34	30,436
Gogebic	14.66	7,323	14.68	7,926
Alcona	14.89	2,035	14.50[a]	2,300[a]
Arenac	15.80	5,058	14.47	5,395
Benzie	13.69	3,710	13.76	4,349
Iron	13.91	5,248	13.62	5,629
Oceana	15.61	5,960	13.57	6,184
Houghton	13.41	13,078	13.30	14,299
Eaton	13.18	18,995	12.45	20,574
Isabella	11.25	17,831	12.37	21,749
Clinton	12.46	10,977	12.27	12,517
Otsego	13.00	7,191	12.07	7,740
Oscoda	13.28	1,450	11.97	1,481
Delta	11.88	17,413	11.93	18,430
Alger	12.02	2,864	11.90	3,087
Kent	11.83	277,864	11.89	318,549
Wexford	13.08	11,149	11.89	12,160
Shiawassee	11.78	21,737	11.68	23,594
Newaygo	11.03	8,365	11.42	9,351
Bay	11.58	54,610	11.28	60,699
Mecosta	10.66	8,626	11.23	10,022
Alpena	11.06	14,231	11.17	16,128

TABLE XXI-8. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in retail trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Kalkaska	11.59	3,497	11.08	4,036
Oakland	11.22	612,241	10.96	717,033
Antrim	12.30	4,575	10.92	4,741
St. Clair	11.36	49,206	10.92	53,941
Dickinson	10.01	11,438	10.88	13,978
Ionia	11.14	15,241	10.88	17,136
Leelanau	13.25	2,963	10.81	3,246
Iosco	10.50	10,877	10.73	11,519
Mason	10.76	9,054	10.69	10,030
Lapeer	9.80	16,516	10.67	20,134
Tuscola	10.73	16,414	10.52	17,938
Barry	10.17	10,721	10.51	11,555
Chippewa	9.43	11,800	10.35	12,537
Montcalm	11.02	16,306	10.21	17,275
Sanilac	10.73	12,406	10.18	13,309
Luce	9.23	2,588	10.13	3,148
Allegan	10.33	18,890	10.05	21,228
Monroe	10.66	38,538	10.00	42,652
Van Buren	10.79	17,429	9.87	17,759
Jackson	9.96	70,702	9.73	77,333
Manistee	10.16	7,487	9.73	8,310
Huron	10.67	13,162	9.72	13,254
Berrien	10.54	83,507	9.65	87,288
Presque Isle	9.69	3,523	9.65	3,842
Gratiot	9.29	15,071	9.55	16,828
Cass	10.02	12,319	9.47	13,182
Osceola	9.86	4,721	9.45	5,171
Kalamazoo	9.45	111,141	9.42	124,810
Hillsdale	9.88	13,072	9.28	14,179
Marquette	8.83	28,598	9.28	32,076
Baraga	15.77	3,719	9.09	2,342
Lenawee	9.24	33,054	8.92	35,991
Keweenaw	(b)	387	8.77	421
Muskegon	8.92	63,729	8.74	69,065
Ottawa	9.18	51,107	8.61	56,880

TABLE XXI-8. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in retail trade			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Charlevoix	8.78	5,583	8.46	6,258
Branch	8.70	13,301	8.35	15,063
Menominee	8.80	6,435	8.29	6,701
Ingham	8.97	176,694	8.10	180,424
Macomb	7.93	257,778	7.92	306,541
Calhoun	8.13	65,367	7.91	69,661
Saginaw	8.16	109,178	7.90	121,008
Wayne	8.43	1,436,613	7.89	1,503,781
St. Joseph	8.24	17,839	7.75	18,794
Ontonagon	6.86	3,375	7.1[a]	3,500[a]
Washtenaw	7.00	123,623	6.85	140,671
Genesee	7.18	210,382	6.84	238,511
Midland	4.83	22,668	5.07	27,868
Michigan	9.26	4,495,359	8.92	4,951,078
United States	10.24	107,290,000	10.13	118,024,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Estimated by the Division of Research, Graduate School of Business Administration, Michigan State University.

b. Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XXI-9. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE: 1976-1977

County	Percentage change 1972-1977	Percentage change 1976-1977	County	Percentage change 1972-1977	Percentage change 1976-1977
Grand Traverse	71	24	St. Clair	43	10
Midland	56	23	Schoolcraft	73	10
Dickinson	55	22	Houghton	38	9
Iron	66	22	Jackson	47	9
Lapeer	56	22	Keweenaw	54	9
Luce	72	22	Lenawee	26	9
Macomb	62	19	Presque Isle	8	9
Montmorency	58	19	Shiawassee	41	9
Cheboygan	66	18	Tuscola	42	9
Benzie	57	17	Wexford	53	9
Oakland	74	17	Alger	49	8
Emmet	47	16	Barry	66	8
Mecosta	56	16	Eaton	8	8
Clare	58	15	Gladwin	53	8
Kalkaska	113	15	Gogebic	33	8
Kent	41	15	Hillsdale	31	8
Missaukee	38	15	Muskegon	42	8
Clinton	51	14	Otsego	50	8
Mackinac	38	14	Arenac	51	7
Washtenaw	57	14	Calhoun	34	7
Alcona	24[a]	13[a]	Cass	58	7
Alpena	41	13	Iron	44	7
Branch	46	13	Lake	27	7
Genesee	44	13	Sanilac	22	7
Roscommon	43	13	Delta	42	6
Allegan	39	12	Iosco	42	6
Charlevoix	18	12	Montcalm	35	6
Gratiot	35	12	Chippewa	41	6
Ionia	50	12	Berrien	35	5
Kalamazoo	66	12	St. Joseph	11	5
Marquette	73	12	Wayne	24	5
Newaygo	45	12	Antrim	37	4
Bay	49	11	Menominee	30	4
Crawford	70[a]	11[a]	Oceana	21	4
Manistee	56	11	Ontonagon	34[a]	4[a]
Mason	39	11	Ingham	58	2
Monroe	42	11	Oscoda	16	2
Ottawa	63	11	Van Buren	26	2
Saginaw	42	11	Huron	18	1
Leelanau	34	10	Baraga	29	-37
Livingston	82	10			
Ogemaw	35	10	Michigan	43	10
Osceola	39	10	United States	49	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Estimated by the Division of Research, Graduate School of Business Administration, Michigan State University.

TABLE XXI-10. NUMBER OF ESTABLISHMENTS AND SALES, FOOD STORES IN MICHIGAN BY COUNTY: 1967 AND 1972

County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972	County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972
Alcona	19	20	1,576	2,632	Gladwin	33	27	4,418	7,581
Alger	25	23	3,965	5,308	Gogebic	38	32	9,024	12,857
Allegan	67	68	18,483	31,358	Grand Traverse	63	68	19,721	31,975
Alpena	76	52	13,889	20,254	Gratiot	56	53	13,787	20,733
Antrim	19	23	3,793	6,564	Hillsdale	48	41	18,190	15,224
Arenac	28	26	3,914	5,416	Houghton	79	70	14,294	18,852
Baraga	17	12	3,093	4,609	Huron	60	66	10,800	17,258
Barry	40	47	10,100	14,805	Ingham	253	205	95,072	119,643
Bay	170	158	44,366	61,564	Ionia	56	62	15,109	21,748
Benzie	26	22	3,147	5,124	Iosco	53	57	9,011	13,754
Berrien	202	216	65,612	90,145	Iron	30	31	7,090	8,228
Branch	39	43	14,029	15,863	Isabella	40	35	11,622	19,389
Calhoun	163	129	61,266	78,829	Jackson	152	148	53,353	73,906
Cass	46	50	11,312	19,029	Kalamazoo	142	136	83,158	111,180
Charlevoix	36	29	6,335	8,839	Kalkaska	8	15	1,606	2,545
Cheboygan	45	47	7,011	15,455	Kent	395	366	180,539	267,423
Chippewa	65	67	11,527	15,401	Keweenaw	10	10	603	654
Clare	42	36	7,179	12,065	Lake	22	22	2,121	2,358
Clinton	38	38	9,623	19,358	Lapeer	61	60	14,763	23,299
Crawford	8	10	2,530	4,918	Leelanau	22	25	2,603	7,200
Delta	82	66	15,924	23,740	Lenawee	103	112	32,784	55,623
Dickinson	41	36	9,719	13,411	Livingston	54	60	16,731	27,583
Eaton	83	70	20,866	26,117	Luce	9	11	2,576	3,645
Emmet	44	48	8,256	15,352	Mackinac	33	34	4,159	5,565
Genesee	416	406	174,401	244,171	Macomb	563	588	216,217	365,429

TABLE XXI-10. NUMBER OF ESTABLISHMENTS AND SALES, FOOD STORES IN MICHIGAN BY COUNTY: 1967 AND 1972 (cont.)

County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972
Manistee	35	39	7,509	12,590
Marquette	78	86	23,760	27,262
Mason	38	35	9,635	15,530
Mecosta	34	33	8,181	15,177
Menominee	52	39	7,908	11,060
Midland	56	57	24,620	35,173
Missaukee	13	12	1,925	3,290
Monroe	107	103	31,039	46,895
Montcalm	53	46	18,713	28,210
Montmorency	14	22	1,698	2,883
Muskegon	177	137	64,730	90,945
Newaygo	34	43	6,803	11,421
Oakland	859	837	345,598	510,403
Oceana	25	31	6,565	10,213
Ogemaw	25	34	5,685	10,734
Ontonagon	13	18	3,246	5,501
Osceola	26	30	4,486	7,152
Oscoda	11	11	1,083	2,316
Otsego	22	22	4,757	8,083
Ottawa	111	113	42,917	78,341
Presque Isle	32	31	4,484	6,910
Roscommon	39	44	5,945	10,743
Saginaw	255	220	75,443	117,235
St. Clair	168	153	41,378	59,875
St. Joseph	62	53	18,944	28,351
Sanilac	52	65	11,368	18,770
Schoolcraft	25	22	3,610	4,952
Shiawassee	66	67	22,276	29,156
Tuscola	78	81	14,822	22,896
Van Buren	81	69	21,806	30,650
Washtenaw	167	157	85,907	140,069
Wayne	3686	2985	1,044,192	1,277,146
Wexford	38	46	9,361	16,089
TOTAL	10,752	9,817	3,351,660	4,710,000

SOURCES: Bureau of the Census, U.S. Census of Business, 1967, Retail Trade, Michigan (Washington, D.C.: 1969), BC67-RA24, Table 3; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

TABLE XXI-11. NUMBER OF ESTABLISHMENTS AND SALES, GASOLINE SERVICE STATIONS IN MICHIGAN BY COUNTY: 1967 AND 1972

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1967	1972	1967	1972		1967	1972	1967	1972
Alcona	11	13	773	2,648	Gladwin	17	26	1,303	2,345
Alger	18	17	1,521	2,620	Gogebic	42	30	3,088	4,039
Allegan	61	85	6,832	13,934	Grand Traverse	52	56	5,710	9,289
Alpena	39	41	3,557	5,129	Gratiot	47	56	4,748	5,982
Antrim	16	28	1,165	3,327	Hillsdale	55	48	4,715	5,341
Arenac	22	42	2,955	6,477	Houghton	47	48	3,033	5,672
Baraga	13	16	1,086	1,758	Huron	46	64	3,467	6,570
Barry	28	31	3,008	4,231	Ingham	233	268	33,751	43,343
Bay	125	138	15,475	19,299	Ionia	51	52	5,003	6,307
Benzie	12	20	930	2,190	Iosco	35	42	2,902	5,220
Berrien	221	228	27,308	36,117	Iron	29	30	2,382	3,561
Branch	40	44	4,501	7,369	Isabella	30	48	3,159	6,616
Calhoun	152	160	22,399	25,450	Jackson	153	164	17,425	24,314
Cass	42	43	3,858	4,225	Kalamazoo	190	215	23,815	34,005
Charlevoix	24	29	2,057	3,295	Kalkaska	9	13	855	1,987
Cheboygan	46	53	3,831	7,230	Kent	402	486	53,137	79,185
Chippewa	47	51	3,180	5,268	Keweenaw	6	7	300	475
Clare	38	50	4,891	7,186	Lake	11	17	655	1,388
Clinton	40	50	4,002	7,347	Lapeer	46	53	5,669	8,077
Crawford	19	22	1,828	3,603	Leelanau	14	18	812	2,030
Delta	47	41	3,600	9,121	Lenawee	102	104	10,499	13,994
Dickinson	34	45	2,090	4,507	Livingston	53	54	7,541	10,688
Eaton	78	91	8,324	12,977	Luce	6	5	508	526
Emmet	32	46	3,101	5,530	Mackinac	28	34	3,229	4,378
Genesee	357	399	54,609	80,927	Macomb	431	514	64,345	104,279

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES OF 2,500 INHABITANTS OR MORE: 1972 (cont.)

City	All establishments		Establishments with payroll				
					Payroll ($1,000)		Paid employees[a] 12 March
	Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
South Lyon	44	9,047	27	8,747	1,015	237	213
Sparta	65	9,636	44	9,195	786	184	204
Springfield	45	10,799	28	10,370	1,230	288	212
Springlake	68	8,108	44	7,754	823	176	208
Sterling Heights	271	124,121	178	122,199	13,515	2,895	2,579
Sturgis	172	44,575	131	43,025	5,111	1,215	1,101
Swartz Creek	61	7,700	37	7,265	963	225	190
Taylor	408	194,826	280	190,725	21,590	4,632	3,999
Tecumseh	104	23,252	75	22,064	2,325	542	497
Three Rivers	150	32,612	101	31,519	3,315	740	661
Traverse City	376	121,655	289	119,610	15,618	3,437	2,778
Trenton	151	38,158	109	37,206	4,418	973	1,043
Troy	319	313,063	204	310,053	37,993	8,887	6,047
Utica	115	28,441	88	27,856	3,333	771	665
Vassar	69	15,148	49	14,584	1,320	314	277
Wakefield	40	3,276	26	2,874	307	90	134
Walker	129	84,297	85	83,301	7,275	1,670	1,403
Walled Lake	58	21,476	47	21,195	2,314	497	391
Warren	949	452,123	695	443,758	49,282	11,440	9,366
Wayne	184	84,541	145	82,855	9,488	2,234	1,652
Westland	405	213,958	260	210,874	22,873	4,962	4,232
Whitehall	62	11,109	44	10,526	1,088	247	275
Williamston	57	8,348	34	7,938	750	186	170
Woodhaven	29	22,037	18	21,887	2,653	568	462
Wolverine Lake	10	941	5	713	49	13	12

TABLE XXI-11. NUMBER OF ESTABLISHMENTS AND SALES, GASOLINE SERVICE STATIONS IN MICHIGAN BY COUNTY: 1967 AND 1972 (cont.)

County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972	County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972
Manistee	35	44	2,761	4,631	Presque Isle	16	21	1,310	1,902
Marquette	69	66	6,415	10,403	Roscommon	34	42	2,653	4,684
Mason	37	43	2,683	4,198	Saginaw	199	208	26,367	35,091
Mecosta	38	43	2,732	4,746	St. Clair	136	118	13,558	16,041
Menominee	28	30	1,804	2,819	St. Joseph	68	68	7,186	8,505
Midland	49	70	8,300	13,362	Sanilac	45	55	3,316	5,105
Missaukee	12	15	839	1,459	Schoolcraft	18	20	1,214	1,769
Monroe	98	112	10,557	17,145	Shiawassee	69	74	6,562	7,859
Montcalm	58	62	4,859	6,706	Tuscola	48	54	4,092	7,656
Montmorency	9	16	500	1,217	Van Buren	74	80	7,758	10,381
Muskegon	146	169	18,021	25,512	Washtenaw	160	204	27,468	40,989
Newaygo	34	44	2,751	5,483	Wayne	1996	1968	305,348	373,429
Oakland	655	769	102,642	158,252	Wexford	35	37	3,507	4,755
Oceana	26	21	2,444	3,062					
Ogemaw	12	22	1,004	3,420	TOTAL	8,112	8,919	1,051,017	1,481,565
Ontonagon	16	18	1,284	1,798					
Osceola	29	33	2,199	3,016					
Oscoda	11	12	942	947					
Otsego	29	30	4,424	5,116					
Ottawa	126	116	14,585	18,731					

SOURCES: Bureau of the Census, U.S. Census of Business, 1967, Retail Trade, Michigan (Washington, D.C.: 1969), BC67-RA24, Table 3; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

TABLE XXI-12. NUMBER OF ESTABLISHMENTS AND SALES, EATING AND DRINKING PLACES IN MICHIGAN BY COUNTY: 1967 AND 1972

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1967	1972	1967	1972		1967	1972	1967	1972
Alcona	20	23	465	901	Gladwin	22	27	879	1,664
Alger	33	33	978	1,765	Gogebic	84	92	1,755	3,151
Allegan	97	108	4,842	8,857	Grand Traverse	69	77	5,556	(D)
Alpena	71	75	3,663	6,303	Gratiot	55	59	3,619	6,209
Antrim	36	37	957	2,608	Hillsdale	58	60	2,063	4,788
Arenac	36	36	1,536	2,146	Houghton	111	89	3,318	4,528
Baraga	24	25	911	1,527	Huron	85	90	3,243	5,264
Barry	39	46	1,658	3,318	Ingham	285	337	32,692	57,779
Bay	198	187	13,385	20,826	Ionia	71	83	3,565	5,871
Benzie	28	25	1,045	1,835	Iosco	61	74	2,775	5,224
Berrien	302	311	20,938	32,485	Iron	71	56	1,716	2,129
Branch	62	57	2,479	5,244	Isabella	48	60	3,635	7,168
Calhoun	231	255	17,436	28,950	Jackson	213	227	16,518	25,796
Cass	72	78	3,816	6,074	Kalamazoo	227	246	20,981	38,151
Charlevoix	42	46	1,781	3,319	Kalkaska	12	22	505	1,313
Cheboygan	64	66	3,455	5,011	Kent	465	555	45,084	81,143
Chippewa	78	88	3,086	6,525	Keweenaw	13	15	392	(D)
Clare	55	70	2,644	4,464	Lake	26	30	771	1,583
Clinton	51	57	2,833	3,891	Lapeer	47	50	2,703	5,911
Crawford	26	28	1,038	1,934	Leelanau	25	34	938	1,999
Delta	91	94	3,458	5,973	Lenawee	149	164	9,249	14,490
Dickinson	73	68	2,307	3,425	Livingston	68	83	4,306	8,959
Eaton	75	94	5,148	11,523	Luce	22	21	612	1,488
Emmet	53	64	2,797	6,594	Mackinac	65	74	2,039	4,000
Genesee	561	571	44,394	78,466	Macomb	575	755	54,548	107,050

TABLE XXI-12. NUMBER OF ESTABLISHMENTS AND SALES, EATING AND DRINKING PLACES IN MICHIGAN BY COUNTY: 1967 AND 1972 (cont.)

County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972	County	Number of establishments 1967	Number of establishments 1972	Sales ($1,000) 1967	Sales ($1,000) 1972
Manistee	52	52	1,813	2,032	Presque Isle	34	37	913	1,608
Marquette	110	111	5,933	9,475	Roscommon	68	80	2,424	4,870
Mason	47	52	2,330	4,921	Saginaw	287	289	25,041	42,148
Mecosta	48	53	2,344	4,437	St. Clair	198	224	12,366	21,926
Menominee	58	62	1,782	3,054	St. Joseph	79	79	5,077	7,465
Midland	56	57	3,676	7,275	Sanilac	65	63	2,315	3,951
Missaukee	12	13	364	796	Schoolcraft	36	40	1,344	2.047
Monroe	151	158	8,362	17,290	Shiawassee	84	76	4,194	6,532
Montcalm	79	77	3,438	6,048	Tuscola	71	86	2,799	4,539
Montmorency	24	25	569	1,383	Van Buren	85	97	3,944	6,973
Muskegon	212	212	16,387	23,654	Washtenaw	229	293	27,142	46,879
Newaygo	39	49	2,045	3,241	Wayne	4661	4393	371,848	503,360
Oakland	825	1017	98,038	180,369	Wexford	46	43	2,675	3,922
Oceana	33	42	1,017	2,031					
Ogemaw	38	35	1,473	2,514	TOTAL	13,297	13,988	993,162	1,609,913
Ontonagon	31	35	1,038	1,532					
Osceola	26	28	893	1,626					
Oscoda	13	21	522	933					
Otsego	28	34	1,861	4,280					
Ottawa	127	133	8,585	14,641					

SOURCES: Bureau of the Census, U.S. Census of Business, 1967, Retail Trade, Michigan (Washington, D.C.: 1969), BC67-RA24, Table 3; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

(D): Data withheld to avoid disclosing figures for individual companies.

TABLE XXI-13. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO RETAIL TRADE ESTABLISHMENTS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
1. Roscommon	2,713	1. Emmet	$3,757	1. Macomb	$381,645
2. Mackinac	2,214	2. Grand Traverse	3,574	2. Oakland	371,594
3. Keweenaw	1,913	3. Roscommon	3,293	3. Washtenaw	365,552
4. Emmet	1,851	4. Otsego	3,111	4. Ingham	340,203
5. Montmorency	1,842	5. Wexford	3,001	5. Genesee	330,117
6. Benzie	1,716	6. Oakland	2,925	6. Wayne	328,284
7. Schoolcraft	1,667	7. Cheboygan	2,886	7. Kent	316,707
8. Cheboygan	1,631	8. Crawford	2,833	8. Saginaw	312,577
9. Crawford	1,600	9. Ogemaw	2,723	9. Kalamazoo	307,979
10. Clare	1,585	10. Kent	2,703	10. Eaton	292,782
11. Lake	1,516	11. Eaton	2,673	11. Midland	285,915
12. Arenac	1,508	12. Alpena	2,625	12. Muskegon	282,121
13. Charlevoix	1,474	13. Dickinson	2,523	13. Grand Traverse	270,790
14. Iron	1,453	14. Ingham	2,509	14. Jackson	264,851
15. Otsego	1,440	15. Washtenaw	2,504	15. Bay	260,758
16. Kalkaska	1,435	16. Lenawee	2,494	16. Ottawa	258,601
17. Oscoda	1,423	17. Genesee	2,465	17. Calhoun	256,566
18. Alger	1,422	18. Mason	2,424	18. Isabella	251,592
19. Ogemaw	1,402	19. Macomb	2,392	19. Lapeer	250,435
20. Leelanau	1,365	20. Kalamazoo	2,372	20. Monroe	244,181
21. Gogebic	1,337	21. Clare	2,344	21. Alpena	237,909
22. Iosco	1,331	22. Bay	2,320	22. Lenawee	236,632
23. Grand Traverse	1,320	23. Calhoun	2,316	23. Berrien	232,350
24. Antrim	1,316	24. Mackinac	2,315	24. Livingston	230,994
25. Huron	1,315	25. Saginaw	2,304	25. St. Clair	229,908

TABLE XXI-13. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO RETAIL TRADE ESTABLISHMENTS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
26. Wexford	1,311	26. Berrien	$2,291	26. Wexford	$228,970
27. Manistee	1,284	27. Delta	2,274	27. Shiawassee	222,904
28. Alcona	1,272	28. Montcalm	2,249	28. Otsego	216,120
29. Dickinson	1,240	29. Jackson	2,228	29. Branch	211,299
30. Baraga	1,234	30. Benzie	2,205	30. Clinton	211,188
31. Presque Isle	1,227	31. Arenac	2,203	31. Delta	211,025
32. Ontonagon	1,222	32. Wayne	2,182	32. Mason	208,993
33. Missaukee	1,182	33. Gogebic	2,131	33. Montcalm	208,321
34. Mason	1,160	34. Midland	2,127	34. Marquette	207,030
35. Chippewa	1,137	35. Muskegon	2,105	35. Dickinson	203,527
36. Oceana	1,109	36. Gratiot	2,100	36. Emmet	202,956
37. Alpena	1,103	37. St. Joseph	2,095	37. Gratiot	200,916
38. Houghton	1,099	38. Schoolcraft	2,080	38. Van Buren	198,585
39. Osceola	1,097	39. Kalkaska	2,060	39. St. Joseph	194,751
40. Gladwin	1,095	40. Iosco	2,059	40. Ogemaw	194,264
41. Montcalm	1,080	41. St. Clair	2,040	41. Mecosta	189,767
42. Delta	1,078	42. Iron	2,009	42. Allegan	188,875
43. St. Joseph	1,075	43. Montmorency	2,003	43. Ionia	183,896
44. St. Clair	1,071	44. Manistee	1,999	44. Luce	183,750
45. Newaygo	1,066	45. Branch	1,984	45. Crawford	177,071
46. Lenawee	1,053	46. Charlevoix	1,965	46. Cheboygan	176,904
47. Gratiot	1,045	47. Huron	1,950	47. Tuscola	172,267
48. Menominee	1,020	48. Chippewa	1,945	48. Chippewa	171,061
49. Berrien	986	49. Ottawa	1,853	49. Houghton	165,887
50. Tuscola	970	50. Shiawassee	1,848	50. Hillsdale	163,613

TABLE XXI-13. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO RETAIL TRADE ESTABLISHMENTS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales establishment
51. Hillsdale	959	51. Presque Isle	$1,846	51. Cass	$161,768
52. Branch	939	52. Ontonagon	1,829	52. Gogebic	159,445
53. Eaton	913	53. Houghton	1,824	53. Gladwin	159,130
54. Mecosta	912	54. Van Buren	1,779	54. Barry	156,669
55. Ionia	908	55. Antrim	1,755	55. Sanilac	156,513
56. Luce	907	56. Baraga	1,749	56. Manistee	155,661
57. Calhoun	903	57. Gladwin	1,743	57. Iosco	154,743
58. Allegan	899	58. Mecosta	1,731	58. Presque Isle	150,438
59. Van Buren	896	59. Livingston	1,727	59. Ontonagon	149,621
60. Bay	890	60. Isabella	1,705	60. Huron	148,250
61. St. Clair	887	61. Allegan	1,698	61. Clare	147,934
62. Kent	853	62. Sanilac	1,676	62. Arenac	146,033
63. Jackson	841	63. Alger	1,673	63. Oceana	145,883
64. Shiawassee	829	64. Lapeer	1,673	64. Menominee	144,319
65. Cass	826	65. Tuscola	1,672	65. Newaygo	143,925
66. Oakland	787	66. Ionia	1,669	66. Kalkaska	143,483
67. Marquette	786	67. Luce	1,666	67. Baraga	141,779
68. Kalamazoo	770	68. Alcona	1,634	68. Iron	138,262
69. Barry	764	69. Marquette	1,626	69. Charlevoix	133,353
70. Livingston	748	70. Oceana	1,618	70. Antrim	133,335
71. Genesee	747	71. Monroe	1,611	71. Osceola	130,635
72. Muskegon	746	72. Hillsdale	1,569	72. Alcona	128,515
73. Midland	744	73. Newaygo	1,534	73. Benzie	128,503
74. Ingham	738	74. Clinton	1,532	74. Schoolcraft	124,821
75. Saginaw	737	75. Leelanau	1,524	75. Roscommon	121,388

TABLE XXI-13. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO RETAIL TRADE ESTABLISHMENTS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
76. Clinton	725	76. Menominee	$1,472	76. Missaukee	$121,231
77. Ottawa	716	77. Missaukee	1,433	77. Alger	117,695
78. Washtenaw	685	78. Osceola	1,433	78. Leelanau	111,656
79. Isabella	676	79. Oscoda	1,426	79. Montmorency	108,733
90. Lapeer	668	80. Cass	1,337	80. Mackinac	104,203
81. Wayne	665	81. Lake	1,279	81. Oscoda	100,203
82. Monroe	660	82. Barry	1,198	82. Lake	84,381
83. Macomb	627	83. Keweenaw	837	83. Leweenaw	43,773

SOURCES: Adapted from Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C : 1974), RC72-A-23, Table 6; and Bureau of the Census, Current Population Reports, Series P-26, No. 69 (Washington, D.C.: 1974), Table I.

TABLE XXI-14. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO FOOD STORES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
1. Keweenaw	435	1. Roscommon	$934	1. Washtenaw	$892,159
2. Montmorency	386	2. Cheboygan	863	2. Kalamazoo	817,500
3. Roscommon	383	3. Ogemaw	845	3. Kent	730,664
4. Lake	344	4. Emmet	787	4. Ottawa	693,283
5. Mackinac	330	5. Wexford	781	5. Muskegon	663,832
6. Ogemaw	286	6. Grand Traverse	763	6. Macomb	621,478
7. Alger	277	7. Crawford	703	7. Midland	617,070
8. Cheboygan	263	8. Otsego	697	8. Montcalm	613,261
9. Schoolcraft	262	9. Montcalm	680	9. Calhoun	611,078
10. Benzie	250	10. Lenawee	669	10. Oakland	609,800
11. Alcona	247	11. Clare	659	11. Genesee	601,406
12. Emmet	246	12. Kent	645	12. Ingham	583,624
13. Kalkaska	242	13. Alger	640	13. Isabella	553,971
14. Presque Isle	235	14. Delta	636	14. St. Joseph	534,925
15. Iron	223	15. Mason	636	15. Saginaw	532,886
16. Wexford	223	16. Alpena	635	16. Clinton	509,421
17. Arenac	217	17. Gogebic	627	17. Jackson	499,365
18. Leelanau	217	18. Leelanau	626	18. Lenawee	496,634
19. Oscoda	212	19. Baraga	599	19. Crawford	491,800
20. Iosco	207	20. Manistee	597	20. Grand Traverse	470,221
21. Clare	197	21. Ottawa	597	21. Allegan	461,147
22. Chippewa	195	22. Iron	592	22. Mecosta	459,909
23. Houghton	193	23. Schoolcraft	590	23. Livingston	459,717
24. Otsego	190	24. Washtenaw	585	24. Monroe	455,291
25. Huron	188	25. Benzie	582	25. Van Buren	444,203

TABLE XXI-14. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO FOOD STORES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
26. Manistee	185	26. St. Joseph	$579	26. Mason	$443,714
27. Gladwin	184	27. Muskegon	574	27. Shiawassee	435,164
28. Osceola	182	28. Macomb	573	28. Wayne	427,855
29. Delta	177	29. Calhoun	559	29. Berrien	417,338
30. Sanilac	177	30. Dickinson	554	30. Gogebic	401,781
31. Charlevoix	170	31. Oakland	554	31. St. Clair	391,340
32. Antrim	169	32. Kalamazoo	550	32. Gratiot	391,189
33. Ontonagon	167	33. Genesee	543	33. Bay	389,646
34. Alpena	163	34. Midland	543	34. Alpena	389,500
35. Grand Traverse	162	35. Berrien	541	35. Lapeer	388,317
36. Oceana	161	36. Mackinac	540	36. Baraga	384,083
37. Tuscola	160	37. Oceana	532	37. Cass	380,580
38. Menominee	157	38. Presque Isle	523	38. Eaton	373,100
39. Baraga	156	39. Saginaw	523	39. Dickinson	372,528
40. Gogebic	156	40. Gratiot	521	40. Hillsdale	371,713
41. Missaukee	156	41. Houghton	521	41. Branch	368,907
42. Dickinson	149	42. Bay	519	42. Otsego	367,409
43. Newaygo	149	43. Charlevoix	517	43. Delta	359,697
44. Luce	146	44. Gladwin	516	44. Ionia	350,774
45. Crawford	143	45. Van Buren	515	45. Wexford	349,761
46. Mason	143	46. Jackson	514	46. Clare	335,139
47. Lenawee	135	47. Sanilac	510	47. Luce	332,182
48. Bay	133	48. Ontonagon	509	48. Oceana	329,452
49. Gratiot	133	49. Montmorency	506	49. Cheboygan	328,830
50. Berrien	130	50. Iosco	500	50. Manistee	322,821

TABLE XXI-14. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO FOOD STORES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
51. Ionia	130	51. Mecosta	$496	51. Emmet	$319,833
52. Marquette	126	52. Huron	490	52. Marquette	317,000
53. St. Clair	121	53. Luce	486	53. Ogemaw	315,706
54. Barry	118	54. Antrim	483	54. Barry	315,000
55. Cass	116	55. Wayne	481	55. Ontonagon	305,611
56. Van Buren	116	56. St. Clair	474	56. Charlevoix	304,793
57. Wayne	113	57. Ionia	457	57. Sanilac	288,769
58. Montcalm	111	58. Tuscola	452	58. Leelanau	288,000
59. Branch	110	59. Arenac	451	59. Antrim	285,391
60. Lapeer	109	60. Allegan	450	60. Menominee	283,590
61. Mecosta	108	61. Ingham	450	61. Tuscola	282,667
62. St. Joseph	108	62. Chippewa	449	62. Gladwin	280,778
63. Hillsdale	106	63. Oscoda	445	63. Missaukee	274,167
64. Jackson	103	64. Menominee	444	64. Houghton	269,314
65. Shiawassee	102	65. Shiawassee	444	65. Newaygo	265,605
66. Allegan	98	66. Cass	440	66. Iron	265,419
67. Eaton	98	67. Osceola	433	67. Huron	261,485
68. Saginaw	98	68. Livingston	430	68. Roscommon	244,159
69. Livingston	93	69. Missaukee	427	69. Iosco	241,298
70. Macomb	92	70. Lapeer	423	70. Osceola	238,400
71. Calhoun	91	71. Kalkaska	410	71. Benzie	232,909
72. Oakland	91	72. Branch	405	72. Alger	230,783
73. Genesee	90	73. Isabella	403	73. Chippewa	229,866
74. Kent	88	74. Clinton	400	74. Schoolcraft	225,091
75. Midland	88	75. Marquette	400	75. Presque Isle	222,903

TABLE XXI-14. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO FOOD STORES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
76. Muskegon	86	76. Newaygo	$397	76. Oscoda	$210,545
77. Ottawa	86	77. Hillsdale	392	77. Arenac	208,308
78. Monroe	84	78. Monroe	381	78. Kalkaska	169,667
79. Clinton	79	79. Barry	371	79. Mackinac	163,676
80. Ingham	77	80. Lake	368	80. Alcona	131,600
81. Isabella	73	81. Eaton	366	81. Montmorency	131,045
82. Kalamazoo	67	82. Alcona	325	82. Lake	107,182
83. Washtenaw	66	83. Keweenaw	284	83. Keeweenaw	65,400

SOURCES: Adapted from Bureau of the Census, U S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23. Table 6; and Bureau of the Census, Current Population Reports, Series P-26, No. 69 (Washington, D.C : 1974), Table I.

TABLE XXI-15. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO GASOLINE SERVICE STATIONS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
1. Roscommon	365	1. Arenac	$540	1. Delta	$222,463
2. Arenac	350	2. Crawford	515	2. Oakland	205,789
3. Mackinac	330	3. Otsego	441	3. Alcona	203,692
4. Crawford	314	4. Mackinac	425	4. Macomb	202,877
5. Keeweenaw	304	5. Roscommon	407	5. Genesee	202,825
6. Cheboygan	296	6. Cheboygan	404	6. Washtenaw	200,926
7. Montmorency	281	7. Clare	393	7. Livingston	197,926
8. Clare	273	8. Alcona	327	8. Midland	190,886
9. Lake	266	9. Kalkaska	320	9. Wayne	189,751
10. Otsego	259	10. Alger	316	10. Otsego	170,533
11. Schoolcraft	238	11. Emmet	284	11. Saginaw	168,707
12. Emmet	236	12. Ogemaw	269	12. Branch	167,477
13. Oscoda	231	13. Iron	256	13. Grand Traverse	165,875
14. Benzie	227	14. Benzie	249	14. Allegan	163,929
15. Iron	216	15. Antrim	245	15. Crawford	163,773
16. Kalkaska	210	16. Delta	245	16. Kent	162,932
17. Manistee	209	17. Wexford	231	17. Ingham	161,728
18. Baraga	208	18. Baraga	228	18. Ottawa	161,474
19. Antrim	206	19. Grand Traverse	222	19. Calhoun	159,063
20. Alger	205	20. Manistee	219	20. Berrien	158,408
21. Osceola	200	21. Berrien	217	21. Kalamazoo	158,163
22. Missaukee	195	22. Lake	217	22. Marquette	157,621
23. Dickinson	186	23. Montmorency	214	23. Ogemaw	155,455
24. Huron	182	24. Schoolcraft	211	24. Arenac	154,214
25. Wexford	180	25. Keeweenaw	207	25. Alger	154,118

TABLE XXI-15. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO GASOLINE SERVICE STATIONS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
26. Gladwin	177	26. Midland	$206	26. Monroe	$153,080
27. Mason	176	27. Allegan	200	27. Kalkaska	152,846
28. Ogemaw	173	28. Gogebic	197	28. Lapeer	152,396
29. Charlevoix	170	29. Charlevoix	193	29. Muskegon	150,959
30. Ontonagon	167	30. Kent	191	30. Jackson	148,256
31. Alcona	160	31. Iosco	190	31. Clinton	146,940
32. Presque Isle	159	32. Newaygo	190	32. Oceana	145,810
33. Leelanau	157	33. Missaukee	189	33. Clare	143,720
34. Iosco	153	34. Branch	188	34. Eaton	142,604
35. Newaygo	153	35. Huron	187	35. Tuscola	141,778
36. Chippewa	149	36. Dickinson	186	36. Bay	139,848
37. Montcalm	149	37. Osceola	183	37. Isabella	137,833
38. Sanilac	149	38. Eaton	182	38. Barry	136,484
39. Gogebic	146	39. Oscoda	182	39. Cheboygan	136,415
40. Gratiot	141	40. Calhoun	181	40. St. Clair	135,941
41. Mecosta	141	41. Genesee	179	41. Gogebic	134,633
42. St. Joseph	139	42. Leelanau	177	42. Lenawee	134,558
43. Berrien	137	43. St. Joseph	174	43. Van Buren	129,763
44. Grand Traverse	134	44. Van Buren	174	44. Mackinac	128,765
45. Van Buren	134	45. Oakland	172	45. Wexford	128,514
46. Houghton	133	46. Washtenaw	171	46. Alpena	125,098
47. Alpena	129	47. Jackson	169	47. St. Joseph	125,074
48. Eaton	128	48. Kalamazoo	168	48. Newaygo	124,614
49. Lenawee	125	49. Lenawee	168	49. Iosco	124,286
50. Hillsdale	124	50. Livingston	166	50. Ionia	121,288

TABLE XXI-15. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO GASOLINE SERVICE STATIONS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
51. Allegan	123	51. Ontonagon	$166	51. Emmet	$120,217
52. Menominee	120	52. Bay	163	52. Antrim	118,821
53. Kent	117	53. Ingham	163	53. Iron	118,700
54. Bay	116	54. Macomb	163	54. Houghton	118,167
55. Jackson	114	55. Montcalm	162	55. Charlevoix	113,621
56. Calhoun	113	56. Alpena	161	56. Leelanau	112,778
57. Shiawassee	113	57. Muskegon	161	57. Roscommon	111,524
58. Branch	112	58. Gladwin	160	58. Hillsdale	111,271
59. Delta	110	59. Oceana	159	59. Mecosta	110,372
60. Ionia	109	60. Houghton	157	60. Baraga	109,875
61. Oceana	109	61. Saginaw	157	61. Benzie	109,500
62. Midland	108	62. Mecosta	155	62. Montcalm	108,161
63. Muskegon	107	63. Chippewa	154	63. Gratiot	106,821
64. Tuscola	107	64. Marquette	153	64. Shiawassee	106,203
65. Kalamazoo	106	65. Clinton	152	65. Manistee	105,250
66. Clinton	103	66. Mason	152	66. Luce	105,200
67. Ingham	101	67. Tuscola	151	67. Chippewa	103,294
68. Cass	100	68. Gratiot	150	68. Huron	102,656
69. Isabella	100	69. Lapeer	147	69. Dickinson	100,156
70. Marquette	97	70. Presque Isle	144	70. Ontonagon	99,889
71. Lapeer	96	71. Ottawa	143	71. Cass	98,256
72. St. Clair	94	72. Wayne	141	72. Mason	97,628
73. Saginaw	93	73. Monroe	139	73. Missaukee	97,267
74. Monroe	91	74. Sanilac	139	74. Menominee	93,967
75. Genesee	89	75. Hillsdale	138	75. Sanilac	92,818

TABLE XXI-15. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO GASOLINE SERVICE STATIONS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
76. Ottawa	88	76. Isabella	$138	76. Osceola	$91,394
77. Washtenaw	85	77. Ionia	133	77. Presque Isle	90,571
78. Livingston	84	78. St. Clair	127	78. Gladwin	90,192
79. Oakland	83	79. Shiawassee	120	79. Schoolcraft	88,450
80. Macomb	81	80. Menominee	113	80. Lake	81,647
81. Barry	78	81. Barry	106	81. Oscoda	78,917
82. Wayne	74	82. Cass	98	82. Montmorency	76,063
83. Luce	67	83. Luce	70	83. Keweenaw	67,857

SOURCES: Adapted from Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, Current Population Reports, Series P-26, No. 69 (Washington, D.C.: 1974), Table I.

TABLE XXI-16. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO EATING AND DRINKING PLACES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
1. Mackinac	718	1. Roscommon	$423	1. Oakland	$177,364
2. Roscommon	696	2. Mackinac	388	2. Ingham	171,451
3. Keweenaw	652	3. Otsego	369	3. Washtenaw	159,997
4. Schoolcraft	476	4. Emmet	338	4. Kalamazoo	155,085
5. Lake	469	5. Cheboygan	280	5. Kent	146,204
6. Gogebic	449	6. Crawford	276	6. Saginaw	145,841
7. Montmorency	439	7. Lake	247	7. Macomb	141,788
8. Oscoda	404	8. Clare	244	8. Genesee	137,419
9. Iron	403	9. Schoolcraft	244	9. Midland	127,632
10. Crawford	400	10. Montmorency	243	10. Otsego	125,882
11. Alger	398	11. Ingham	218	11. Eaton	122,585
12. Clare	383	12. Alger	213	12. Isabella	119,467
13. Cheboygan	369	13. Kalkaska	212	13. Lapeer	118,220
14. Kalkaska	355	14. Benzie	209	14. Wayne	114,582
15. Emmet	328	15. Calhoun	205	15. Jackson	113,639
16. Baraga	325	16. Mason	202	16. Calhoun	113,529
17. Ontonagon	324	17. Wexford	199	17. Muskegon	111,575
18. Arenac	300	18. Ogemaw	198	18. Bay	111,369
19. Leelanau	296	19. Alpena	198	19. Gratiot	110,875
20. Otsego	293	20. Baraga	198	20. Ottawa	110,083
21. Benzie	284	21. Luce	198	21. Monroe	109,430
22. Alcona	284	22. Kent	196	22. Livingston	107,940
23. Dickinson	281	23. Oakland	196	23. Berrien	104,453
24. Presque Isle	280	24. Washtenaw	196	24. Emmet	103,031
25. Luce	280	25. Berrien	195	25. St. Clair	97,884

TABLE XXI-16. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO EATING AND DRINKING PLACES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
26. Ogemaw	276	26. Charlevoix	$194	26. Mason	$ 94,635
27. Antrim	272	27. Antrim	192	27. St. Joseph	94,494
28. Charlevoix	269	28. Chippewa	190	28. Branch	92,000
29. Iosco	269	29. Iosco	190	29. Wexford	91,209
30. Chippewa	257	30. Wayne	189	30. Lenawee	88,325
31. Huron	269	31. Kalamazoo	189	31. Shiawassee	85,947
32. Delta	252	32. Saginaw	188	32. Marquette	85,360
33. Menominee	249	33. Jackson	180	33. Alpena	84.040
34. Houghton	246	34. Arenac	179	34. Mecosta	83,717
35. Manistee	246	35. Oscoda	179	35. Allegan	82,009
36. Alpena	235	36. Bay	175	36. Hillsdale	79,800
37. Oceana	219	37. Genesee	174	37. Montcalm	78,545
38. Wexford	218	38. Leelanau	174	38. Cass	77,872
39. Mason	213	39. Lenawee	174	39. Cheboygan	75,924
40. Lenawee	197	40. St. Clair	174	40. Chippewa	74,148
41. Berrien	187	41. Macomb	168	41. Benzie	73,400
42. Montcalm	186	42. Eaton	162	42. Charlevoix	72,152
43. Grand Traverse	184	43. Delta	160	43. Barry	72,130
44. Gladwin	184	44. Gratiot	156	44. Van Buren	71,887
45. Calhoun	181	45. Gogebic	154	45. Ogemaw	71,829
46. Cass	181	46. Iron	153	46. Luce	70,857
47. St. Clair	177	47. St. Joseph	152	47. Ionia	70,735
48. Ionia	174	48. Huron	150	48. Iosco	70,595
49. Mecosta	173	49. Isabella	149	49. Antrim	70,486
50. Sanilac	171	50. Muskegon	149	50. Crawford	69,071

TABLE XXI-16. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO EATING AND DRINKING PLACES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
51. Newaygo	170	51. Montcalm	$146	51. Clinton	$ 68,263
52. Osceola	170	52. Mecosta	145	52. Newaygo	66,143
53. Tuscola	170	53. Manistee	144	53. Clare	63,771
54. Missaukee	169	54. Dickinson	142	54. Delta	63,543
55. Wayne	165	55. Ontonagon	142	55. Sanilac	62,714
56. Marquette	163	56. Cass	141	56. Gladwin	61,630
57. Van Buren	163	57. Monroe	140	57. Missaukee	61,231
58. St. Joseph	161	58. Livingston	140	58. Baraga	61,080
59. Bay	158	59. Marquette	139	59. Roscommon	60,875
60. Jackson	158	60. Branch	134	60. Kalkaska	59,682
61. Allegan	156	61. Allegan	127	61. Arenac	59,611
62. Hillsdale	155	62. Houghton	125	62. Leelanau	58,794
63. Gratiot	148	63. Hillsdale	123	63. Huron	58,489
64. Branch	145	64. Ionia	123	64. Manistee	58,308
65. Kent	134	65. Menominee	123	65. Osceola	58,071
66. Muskegon	134	66. Presque Isle	122	66. Montmorency	55,320
67. Eaton	132	67. Van Buren	117	67. Mackinac	54,054
68. Livingston	129	68. Gladwin	113	68. Alger	53,485
69. Saginaw	129	69. Newaygo	113	69. Tuscola	52,779
70. Monroe	128	70. Midland	112	70. Lake	52,767
71. Genesee	127	71. Ottawa	112	71. Schoolcraft	51,175
72. Ingham	127	72. Alcona	111	72. Houghton	50,876
73. Isabella	125	73. Lapeer	107	73. Dickinson	50,368
74. Kalamazoo	122	74. Sanilac	107	74. Menominee	49,258
75. Washtenaw	122	75. Oceana	106	75. Oceana	48,357

TABLE XXI-16. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO EATING AND DRINKING PLACES PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
76. Clinton	118	76. Missaukee	$103	76. Oscoda	$ 44,429
77. Macomb	118	77. Shiawassee	100	77. Ontonagon	43,771
78. Shiawassee	116	78. Osceola	99	78. Presque Isle	43,459
79. Barry	115	79. Tuscola	90	79. Alcona	39,124
80. Oakland	110	80. Barry	83	80. Iron	38,017
81. Ottawa	101	81. Clinton	80	81. Gogebic	34,250
82. Lapeer	91	82. Grand Traverse	(D)	82. Grand Traverse	(D)
83. Midland	88	83. Keeweenaw	(D)	83. Keweenaw	(D)

SOURCES: Adapted from Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, Current Population Reports, Series P-26, No. 69 (Washington, D.C.: 1974), Table 1.

(D): Data withheld to avoid disclosing figures for individual companies.

TABLE XXI-17. LICENSES ISSUED FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY FOR THE LICENSE PERIOD 1 MAY 1978 TO 30 APRIL 1979

	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
County	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Alcona	51	7	5	0	0	0	1	0	0
Alger	51	4	1	0	0	0	0	0	0
Allegan	219	27	31	6	2	2	23	0	2
Alpena	92	6	14	0	1	0	16	0	1
Antrim	65	4	5	0	0	0	0	0	0
Arenac	45	10	6	0	0	3	2	0	0
Baraga	31	8	5	0	0	0	0	0	0
Barry	89	11	7	2	0	1	11	0	0
Bay	320	20	21	0	0	1	38	15	11
Benzie	52	3	4	1	0	0	1	0	0
Berrien	487	43	73	3	1	2	116	0	30
Branch	117	5	4	2	0	0	23	0	2
Calhoun	394	34	17	4	1	3	75	0	23
Cass	124	11	2	4	0	1	7	0	26
Charlevoix	88	16	9	1	0	0	0	0	0
Cheboygan	108	5	8	0	0	0	0	0	0
Chippewa	176	5	14	0	0	0	0	0	0
Clare	80	10	10	0	0	0	5	1	0
Clinton	118	7	8	1	0	0	5	0	0
Crawford	47	4	4	0	0	0	0	0	0
Delta	149	12	12	0	0	2	14	0	2
Dickinson	96	14	8	1	0	0	6	0	8
Eaton	197	14	24	1	0	0	37	0	2
Emmet	123	7	14	0	0	1	0	0	0
Genesee	1,069	98	65	10	0	2	170	41	116

TABLE XXI-17. LICENSES ISSUED FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY FOR THE LICENSE PERIOD 1 MAY 1978 TO 30 APRIL 1979 (cont.)

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Gladwin	41	7	8	1	0	0	1	0	2
Gogebic	123	7	10	2	0	0	0	0	0
Grand Traverse	155	6	25	6	0	2	26	0	6
Gratiot	102	6	17	2	0	0	5	0	0
Hillsdale	109	15	8	2	1	0	8	14	6
Houghton	159	15	19	0	0	0	1	0	0
Huron	154	9	6	0	0	0	21	4	8
Ingham	700	43	52	13	0	2	230	0	31
Ionia	124	12	15	5	0	1	16	3	0
Iosco	101	16	9	2	0	1	2	0	0
Iron	77	4	6	0	0	0	1	0	0
Isabella	113	11	6	1	0	0	6	0	2
Jackson	415	40	34	17	1	2	107	10	16
Kalamazoo	597	36	48	2	0	0	148	3	18
Kalkaska	31	4	5	1	0	0	1	0	0
Kent	934	89	116	15	6	10	255	14	39
Keweenaw	22	4	2	0	0	1	0	0	0
Lake	44	3	3	0	0	0	0	0	0
Lapeer	110	13	13	3	0	1	3	0	6
Leelanau	57	5	10	0	0	0	0	0	0
Lenawee	258	35	29	2	0	1	30	0	10
Livingston	139	16	28	2	0	0	14	0	1
Luce	35	0	3	0	0	0	0	0	0
Mackinac	120	8	9	0	0	0	0	0	0
Macomb	1,594	143	149	13	15	16	478	28	156

TABLE XXI-17. LICENSES ISSUED FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY FOR THE LICENSE PERIOD 1 MAY 1978 TO 30 APRIL 1979 (cont.)

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Manistee	99	8	12	0	0	0	7	0	1
Marquette	231	14	11	0	1	1	21	0	3
Mason	107	4	17	0	0	1	5	0	1
Mecosta	95	7	4	0	0	5	28	0	0
Menominee	113	4	7	0	0	0	8	0	1
Midland	133	11	19	3	0	1	23	5	4
Missaukee	27	3	1	0	0	0	0	0	0
Monroe	305	24	27	3	2	1	45	0	10
Montcalm	136	14	13	0	0	1	11	0	1
Montmorency	44	5	4	0	0	0	0	0	0
Muskegon	410	29	19	4	0	0	145	0	16
Newaygo	112	7	2	4	0	0	2	0	3
Oakland	2,060	235	200	33	13	29	520	56	179
Oceana	100	9	6	1	1	0	0	0	0
Ogemaw	47	10	4	0	0	0	0	0	0
Ontonagon	64	3	3	0	0	0	0	0	0
Osceola	47	5	3	1	1	1	4	0	1
Oscoda	33	3	0	0	0	0	0	0	0
Otsego	69	2	8	1	0	0	6	0	1
Ottawa	336	17	20	3	1	2	66	8	27
Presque Isle	54	4	1	0	0	0	0	0	0
Roscommon	115	11	9	0	0	0	0	0	0
Saginaw	533	40	39	8	4	4	84	11	12
St. Clair	326	29	34	5	0	1	56	28	23
St. Joseph	157	23	12	4	2	2	33	0	4

TABLE XXI-17. LICENSES ISSUED FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY FOR THE LICENSE PERIOD 1 MAY 1978 TO 30 APRIL 1979 (cont.)

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Sanilac	127	8	10	3	0	0	9	8	11
Schoolcraft	62	4	2	0	0	0	0	0	0
Shiawassee	152	14	18	0	0	1	19	0	7
Tuscola	123	11	9	1	1	0	19	0	5
Van Buren	175	13	15	2	0	0	28	8	6
Washtenaw	543	47	60	1	0	5	163	1	21
Wayne	5,628	573	502	173	13	103	1,411	69	358
Wexford	84	7	8	1	0	0	11	2	2
Indiana	0	0	0	0	0	1	0	0	0
TOTAL	23,349	2,130	2,100	376	67	214	4,627	329	1,221

SOURCE: Michigan Department of Health, Division of Food Service Sanitation, special release.

a. Includes cafeterias, restaurants, delicatessens, soda fountains, drive-ins, bars, taverns, factory commissaries, college dormitories, and other fixed establishments where food is prepared for consumption on the premises. Does not apply to state and county fairs and other temporary food service establishments: carnivals, circuses, public exhibitions, or similar transitory gatherings.

b. Applies to each mobile unit, according to its county or state home base.

c. Locations where food is offered through self-service, coin-operated devices, excepting devices which dispense only bottled or canned soft drinks, other packaged nonperishable foods or beverages, or bulk ball gum, nuts, and panned candies.

TABLE XXI-18. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1978-1979

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Alcona	1	3	17	—	—	43	13	77
Alger	2	2	28	—	—	57	9	98
Allegan	11	5	45	7	1	114	21	204
Alpena	4	4	32	—	—	99	20	159
Antrim	2	3	24	1	—	50	9	89
Arenac	1	1	25	1	—	59	10	97
Baraga	4	2	16	--	—	32	7	61
Barry	6	2	17	1	--	61	13	100
Bay	(4)	(4)	(67)	—	—	(149)	(26)	(250)
Bay City	9	(4)	(65)	--	—	(110)	(19)	(207)
TOTAL BAY	13	8	132	--	--	259	45	457
Benzie	1	3	13	--	—	34	9	60
Berrien	38	10	150	10	—	298	62	568
Branch	10	--	32	2	--	82	13	139
Calhoun	27	7	108	3	—	211	50	406
Cass	6	1	42	2	1	94	12	158
Charlevoix	2	6	27	2	—	53	14	104
Cheboygan	4	2	37	--	—	89	15	147
Chippewa	7	7	49	2	--	116	28	209
Clare	4	6	28	—	—	86	16	140
Clinton	5	--	37	1	--	70	17	130
Crawford	3	2	15	—	—	30	9	59
Delta	8	7	62	2	—	133	23	235
Dickinson	8	3	53	--	--	82	14	160
Eaton	7	1	41	1	—	104	25	179
Emmet	6	11	29	--	—	65	18	129

TABLE XXI-18. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1978-1979 (cont.)

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Genesee	(20)	(7)	(135)	(4)	--	(373)	(89)	(628)
Flint	(15)	—	(141)	(5)	—	(300)	(60)	(521)
TOTAL GENESEE	35	7	276	9	--	673	149	1,149
Gladwin	2	1	18	--	—	54	14	89
Gogebic	6	10	57	—	—	85	8	166
Grand Traverse	4	6	42	—	—	106	24	182
Gratiot	6	1	25	1	—	62	15	110
Hillsdale	6	--	19	7	—	60	12	104
Houghton	5	4	77	1	—	119	19	225
Huron	5	16	44	2	--	118	24	209
Ingham	(9)	(1)	(60)	(11)	—	(123)	(35)	(239)
Lansing City	(8)	(7)	(77)	—	--	(168)	(42)	(302)
TOTAL INGHAM	17	8	137	11	—	291	77	541
Ionia	9	1	38	3	—	83	16	150
Iosco	6	8	29	—	--	96	19	158
Iron	4	2	42	1	—	58	10	117
Isabella	6	1	35	—	—	72	14	128
Jackson	(6)	(2)	(53)	(2)	—	(146)	(41)	(250)
Jackson	(10)	(1)	(53)	(1)	—	(78)	(16)	(159)
TOTAL JACKSON	16	3	106	3	—	224	57	409
Kalamazoo	19	9	112	4	--	212	66	422
Kalkaska	1	1	11	—	1	30	7	51
Kent	(14)	(8)	(76)	(34)	(1)	(236)	(58)	(427)
Grand Rapids	(34)	(4)	(119)	(19)	—	(265)	(62)	(503)
TOTAL KENT	48	12	195	53	1	501	120	930

TABLE XXI-18. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1978-1979 (cont.)

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Keweenaw	—	3	10	—	—	21	4	38
Lake	--	—	16	—	—	42	10	68
Lapeer	3	2	27	3	—	91	26	152
Leelanau	1	5	20	--	--	49	12	87
Lenawee	20	4	56	11	—	136	29	256
Livingston	12	3	54	3	—	108	25	205
Luce	3	1	15	--	—	31	7	57
Mackinac	4	9	31	1	—	71	13	129
Macomb	56	16	324	5	—	709	186	1,296
Manistee	7	3	35	—	--	75	13	133
Marquette	17	10	82	2	—	152	33	296
Mason	7	3	29	—	--	70	16	125
Mecosta	4	2	24	2	--	70	15	117
Menominee	5	3	49	—	--	77	10	144
Midland	10	2	32	2	1	83	22	150
Missaukee	1	—	6	1	—	20	4	32
Monroe	19	3	103	4	--	210	45	384
Montcalm	7	3	40	2	--	93	24	169
Montmorency	--	3	15	--	--	45	10	73
Muskegon	30	7	112	5	—	242	56	452
Newaygo	5	1	24	1	—	64	17	112
Oakland	(76)	(20)	(406)	(12)	--	(849)	(245)	(1,608)
Pontiac	(6)	(1)	(41)	—	--	(96)	(28)	(172)
TOTAL OAKLAND	82	21	447	12	—	945	273	1,780
Oceana	3	--	13	4	—	45	12	77

TABLE XXI-18. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1978-1979 (cont.)

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Ogemaw	3	1	22	1	—	65	12	104
Ontonagon	5	2	30	--	—	46	8	91
Osceola	2	1	11	1	--	43	7	65
Oscoda	1	6	7	--	—	28	6	48
Otsego	2	3	20	--	—	42	11	78
Ottawa	13	2	41	11	—	112	34	213
Presque Isle	2	3	25	—	—	65	10	105
Roscommon	4	2	32	1	—	83	16	138
Saginaw	(10)	(6)	(99)	(1)	—	(220)	(42)	(378)
Saginaw	(15)	(4)	(73)	--	--	(156)	(32)	(280)
TOTAL SAGINAW	25	10	172	1	--	376	74	658
St. Clair	16	14	126	1	—	290	51	498
St. Joseph	14	2	37	2	--	87	17	159
Sanilac	1	9	31	4	—	91	18	154
Schoolcraft	3	3	20	—	—	42	5	73
Shiawassee	13	1	38	4	--	106	25	187
Tuscola	3	4	41	1	--	112	25	186
Van Buren	10	1	54	3	—	128	26	222
Washtenaw	24	9	115	9	—	266	74	496
Wayne	(104)	(23)	(529)	(14)	—	(1,064)	(280)	(2,014)
Dearborn	(13)	(4)	(95)	(1)	—	(156)	(33)	(302)
Hamtramck	(20)	(1)	(74)	--	—	(73)	(15)	(183)
Highland Park	—	(1)	(14)	1	—	(46)	(14)	(76)
Detroit	(82)	(11)	(1,406)	(32)	—	(2,046)	(452)	(4,029)
TOTAL WAYNE	219	40	2,118	48	—	3,385	794	6,604
Wexford	5	5	21	—	—	55	14	100
TOTAL	1,033	410	6,847	274	4	14,036	3,212	25,816

SOURCE: Michigan Liquor Control Commission, special release.
a. Spirits or wine over 16 percent alcohol.

TABLE XXI-19. ESTIMATED ANNUAL SALES OF RETAIL STORES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE STATE OF MICHIGAN, AND THE UNITED STATES: 1965-1978

(millions of dollars)

Year	Detroit Standard Metropolitan Statistical Area		Michigan		United States	
	Nondurable goods	Total	Nondurable goods	Total	Nondurable goods	Total
1965	(a)	6,464	8,165	12,909	190,134	283,852
1966	(a)	6,717	8,765	13,732	205,860	303,672
1967	4,577	6,896	8,957	14,022	213,636	313,809
1968	5,476	8,178	10,372	15,975	229,079	339,324
1969	5,511	8,158	10,747	16,101	284,722	351,633
1970	5,679	8,095	11,154	16,317	261,239	375,633
1971	5,874	8,829	11,962	18,342	277,036	408,850
1972	6,164	9,159	12,934	19,792	298,720	448,379
1973	6,821	10,159	14,554	22,181	333,042	503,317
1974	7,324	10,461	15,604	22,775	370,469	537,782
1975	7,607	10,981	16,357	23,964	403,698	584,423
1976	8,234	12,444	18,067	27,034[b]	437,611	651,694[b]
1977	n.a.	n.a.	n.a.	29,520[b]	n.a.	708,344[b]
1978	11,713	19,614	22,381	36,070	520,902	798,818

SOURCE: U.S. Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1963 through 1978 (Washington, D.C.: annually), BR-78-12, Tables 1, 6, and 7 (1978).

NOTE: Figures are not strictly comparable over time because of changes in the sample of stores used for the estimate and revisions in the estimating procedure itself.

a. Not available prior to 1966.

b. Based on revised sample not strictly comparable with data for previous years. The revised (comparable) figure for the U.S. for 1976, for example, is $642,507,000,000, and for 1975, $580,445,000,000. Revised Michigan data are not available.

n.a.: not available.

TABLE XXI-20. DEPARTMENT STORE SALES AND NUMBER OF DEPARTMENT STORES IN SELECTED MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS AND CITIES: 1978

		Sales ($000)	Number of stores
SMSAs	Ann Arbor	147,084	8
	Detroit	2,065,279	120
	Flint	286,402	24
	Grand Rapids	369,996	26
	Jackson	106,376	7
	Kalamazoo-Portage	158,133	14
	Lansing-East Lansing	275,184	16
	Muskegon-Muskegon Heights-Norton Shores	98,132	7
Cities	Battle Creek	72,277	4
	Port Huron	n.a.	n.a.

SOURCE: Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1978 (Washington, D.C.: annually), BR-76-12, Tables 10 and 10A.

n.a.: not available.

TABLE XXI-21. BRANDED RETAIL OUTLETS IN MICHIGAN: 1974-1979

	1974	1975	1976	1977	1978	1979
American Oil Co. (Amoco)	1,763	1,646	1,547	1,687	1,531	1,363
Ashland Oil Inc.	0	0	0	0	0	0
Atlantic Richfield Co.[a]	516	476	389	262	101	143
Autotronic Systems, Inc.	0	1	3	—	3	—
Bay Refining Co.	125	119	0	—	(b)	—
Boron Oil Corp.	(b)	(b)	(b)	(b)	(b)	—
Champlin Petroleum Co.	3	3	2	2	—	—
Checker Oil Co.	37	36	38	41	41	—
Cities Service Oil Co.	249	129	66	2	—	63
Clark Oil & Refining Co.[c]	332	331	331	331	329	328
Consolidated Stations, Inc.	0	4	85	—	—	—
Consumers Petroleum Co.	0	0	110	119	113	107
Continental Oil Co.	0	0	0	10	9	0
Drake's Refinery Stations, Inc.	—	—	—	—	—	20
Exxon Co., U.S.A.	(b)	(b)	(b)	10	0	0
Fisco Oil Co., Inc.	9	9	8	9	9	9
Fleet Wing Div. Pennzoil Co.	5	5	0	0	—	—
Dow Foster Oil Co.	—	—	—	—	51	—
Great Northern Oil Co.	0	0	0	0	—	—
Gulf Oil Corp.	371	339	306	308	227	178
Hi-fy Gas Stations, Inc.	15	—	—	—	—	—
Highway Oil, Inc.	2	2	2	2	2	—
Hudson Oil Co.	(b)	(b)	(b)	(b)	(b)	8
Humble Oil & Refining Co.	0	0	0	—	—	—
Kayo Oil Co.	79	79	68	68	(b)	—
Kerr-McGee Corp.	6	5	5	6	6	6
Kickapoo Oil Co., Inc.	—	75	0	—	—	—
Kimber Petroleum Corp.	—	—	—	16	—	—
Koch Refining, Inc.	16	16	16	0	13	0
Leonard Refining, Inc. (Total Leonard, Inc.)	699	630	636	628	(b)	—
Marathon Oil Co.	827	810	733	603	569	542
Martin Oil Service, Inc.	29	29	29	29	28	28
McLeicer	—	—	—	—	47	—
Meade Corp.[d]	—	—	—	—	27	27
Meadville Corp.	—	—	0	0	—	—

TABLE XXI-21. BRANDED RETAIL OUTLETS IN MICHIGAN: 1974-1979 (cont.)

	1974	1975	1976	1977	1978	1979
MiCo Oil Co., Inc.	--	--	--	--	--	1
Midland Coops., Inc.	10	10	10	11	11	11
Miller Oil Co.	--	--	--	--	7	4
Mobil Oil Co.	1,096	1,076	1,079	1,076	1,019	962
Murphy Oil Corp.	71	67	60	55	55	49
Naph Sol Refining Co.	235	223	223	223	178	150
North Star Oil Corp.	1	0	0	--	--	--
Payless Stations, Inc.	15	0	0	--	--	--
Pennzoil Co.	10	0	0	--	19	--
Phillips Petroleum Co.[e]	236	232	142	124	167	205
Pivate Brand Services, Inc.	--	--	--	--	--	7
Shell Oil Co.	505	505	494	464	382	349
Sismor Oil Co.	--	--	--	--	--	3
Site Oil Co.	2	2	2	2	--	--
Skelly Oil Co.	4	4	4	--	--	--
South Central Oil Co.	6	0	0	9	9	8
Sun Oil Co. (Sun Mark)	(b)	866	831	831	641	658
Super Go-Marketers, Inc.	15	0	0	--	--	--
Texaco, Inc.	733	577	595	717	557	619
Thornton Oil Co.	--	--	--	--	--	(a)
Total Petroleum, Inc.	--	--	--	--	598	519
Tulsa Oil Corp.	71	71	0	66	59	--
U-Save Automatic Corp.	0	0	0	--	--	--
Union Oil Co. of California	566	607	639	621	639	535
United Refining Co.	0	34	32	28	12	0
Warelubco Inc.	--	--	--	--	--	1
Webb Oil Co.	--	--	--	--	18	21

SOURCE: National Petroleum News, Factbook Issue mid-May 1978, pp. 62-66.

a. Includes Prestige Stations, Inc.
b. Company markets in Michigan, but figures not supplied.
c. Includes Owmes and Bronco.
d. Includes Maverick Oil Co.
e. Includes Pyramid Oil Co., Tallman Oil Co., Metro 66, and Aero Oil Co.
--: Companies no longer operating branded retail outlets.

TABLE XXI-22. LIQUOR CASE SALES BY THE MICHIGAN LIQUOR CONTROL COMMISSION, BY TYPE OF BEVERAGE: 1977 AND 1978

Type	1977		1978	
	Number	Percentage	Number	Percentage
Whiskey				
Domestic	1,627,471	49.64	1,543,358	48.05
Imported	1,650,796	50.36	1,668,850	51.95
Total	3,278,267	100.00	3,212,208	100.00
Domestic whiskey				
American blend	1,230,617	75.62	1,156,843	74.96
Straight bourbon	369,590	22.71	360,878	23.38
Bonded bourbon	22,357	1.37	21,194	1.37
Straight rye	2,460	.15	2,469	.16
Straight corn	1,552	.10	1,361	.09
Light whiskey	504	.03	191	.01
Bonded rye	391	.02	422	.03
Total	1,627,471	100.00	1,543,358	100.00
Imported whiskey				
Canadian	1,051,357	63.69	1,072,561	64.27
Scotch	594,955	36.04	591,185	35.42
Other	4,484	.27	5,104	.31
Total	1,650,796	100.00	1,668,850	100.00
All liquors				
Whiskey	3,278,267	44.72	3,212,208	42.43
Gin	683,838	9.33	722,357	9.54
Brandy, domestic	156,867	2.14	154,815	2.05
Brandy, imported	9,412	.13	9,297	.12
Cognac	44,100	.60	56,362	.74
Rum	380,197	5.19	451,287	5.96
Cordials and liquors				
Domestic	595,047	8.12	596,225	7.88
Imported	61,472	.84	71,484	.94
Vodka	1,174,507	16.02	1,234,611	16.31
Flavored vodka	24,135	.33	21,244	.28
Tequila	62,126	.85	61,021	.81
Prepared cocktails				
Over 22 percent alcohol	13,086	.18	11,599	.15
Under 22 percent alcohol	15,204	.21	12,638	.17
Miscellaneous	30,014	.41	23,252	.31
Wines and vermouth, over 16 percent alcohol	512,085	6.98	450,861	5.96
Alcohol	127	—	154	—
Miniatures	7,413	.10	12,015	.16
Special orders	282,271	3.85	468,872	6.19
Total liquor sales	7,330,169	100.00	7,570,302	100.00

SOURCE. Michigan Liquor Control Commission, special release.

TABLE XXI-23. BEER SHIPMENTS INTO MICHIGAN BY OUT-OF-STATE BREWERIES: 1976-1978

(In barrels)

Breweries	1977	1978
Anheuser Busch	1,414,690	1,487,635
Falstaff Brewing	62,631	48,704
G. Heileman	320,340	284,726
Miller	1,541,819	1,872,606
Olympia Brewing	88,977	184,201
Pabst Brewing	1,717,249	1,474,380
Jos. Schlitz	576,032	467,296
Other breweries	275,127	295,510
Total	5,996,865	6,115,058

SOURCE: Michigan Liquor Control Commission, special release.

TABLE XXI-24. WINE SHIPMENTS INTO MICHIGAN, BY SOURCE: 1976 - 1978

(In gallons)

Source	1976	1977	1978
Domestic wineries:			
Almaden Vineyards	345,483	367,290	439,000
Canandaigue Wine Co.	229,958	243,240	220,171
Franzia Brothers Winery	66,862	126,568	130,714
E & J Gallo Winery	4,094,939	4,106,110	3,944,671
Guild Wineries	354,287	398,482	283,999
Paul Masson Vineyards	328,211	328,423	334,057
Mogen David Wine Corp.	654,036	621,218	517,111
Monarch Wine Co.	307,506	279,371	288,561
Monte LaSalle Vineyards	n.a.	209,176	235,232
Taylor Wine Co.	96,137	200,167	103,231
United Vintners, Inc.	1,687,532	1,293,724	1,175,777
Other domestic:	1,011,442	659,788	822,800
Total domestic	9,176,393	8,833,557	8,495,324
Wine importers:			
American B.D. Co.	126,621	216,081	348,765
Inter. Wine and Liquor Co.	239,501	382,953	360,430
L & L Wine & Liquor Co.	322,709	265,581	312,525
O'Donnell Importing Co.	357,752	323,415	431,135
Renfield Importers, LTD.	95,702	106,231	117,067
Schieffelin & Co.	152,027	172,178	239,887
H.J. Van Hollenback Distr.	383,945	538,512	969,840
Viviano Importers, Inc.	156,926	196,558	224,508
Other importers	976,493	1,192,478	1,641,874
Total imported	2,811,676	3,393,987	4,646,031
Total domestic and imported	11,988,069	12,227,544	13,141,355

SOURCE: Michigan Liquor Control Commission, special release.
n.a.: not available.

TABLE XXI-25. NUMBER OF RETAIL PHARMACIES LICENSED IN MICHIGAN, BY COUNTY: 23 AUGUST 1978

County	Pharmacies	County	Pharmacies
Alcona	2	Lapeer	13
Alger	3	Leelanau	4
Allegan	17	Lenawee	22
Alpena	7	Livingston	15
Antrim	6	Luce	4
Arenac	4	Mackinac	4
Baraga	3	Macomb	146
Barry	8	Manistee	9
Bay	28	Marquette	14
Benzie	5	Mason	7
Berrien	44	Mecosta	10
Branch	9	Menominee	3
Calhoun	34	Midland	14
Cass	8	Missaukee	2
Charlevoix	8	Monroe	26
Cheboygan	6	Montcalm	16
Chippewa	8	Montmorency	2
Clare	7	Muskegon	43
Clinton	9	Newaygo	11
Crawford	3	Oakland	221
Delta	9	Oceana	7
Dickinson	8	Ogemaw	5
Eaton	14	Ontonagon	2
Emmet	9	Osceola	6
Genesee	115	Oscoda	2
Gladwin	7	Otsego	5
Gogebic	5	Ottawa	24
Grand Traverse	17	Presque Isle	5
Gratiot	9	Roscommon	6
Hillsdale	7	Saginaw	56
Houghton	11	Sanilac	11
Huron	12	Schoolcraft	3
Ingham	60	Shiawassee	14
Ionia	13	St. Clair	28
Iosco	7	St. Joseph	16
Iron	6	Tuscola	15
Isabella	9	Van Buren	11
Jackson	33	Washtenaw	55
Kalamazoo	44	Wayne	525
Kalkaska	4	Wexford	8
Kent	89		
Keweenaw	0		
Lake	2	Total	2,099

SOURCE: Department of Licensing and Regulation, special release.

Information on the number of banking offices in the state and operating statistics of insured banks is available from the Federal Deposit Insurance Corporation. Information on bank activity throughout the state is contained in the publications and releases of the Board of Governors of the Federal Reserve System. The Board of Governors releases Bank Debits and Deposit Turnover monthly, listing debits for the Federal Reserve Districts and the principal cities. More detailed information on bank debits in Michigan is available in the releases of the Federal Reserve Banks of Chicago and Minneapolis.

The total of time and demand deposits by counties and states is available in the F. D. I. C. publication, Summary of Deposits in All Commercial and Mutual Savings Banks. Information on bank balance sheet items and operations can be obtained in two additional F. D. I. C. publications, Bank Operating Statistics and Assets and Liabilities - Commercial and Mutual Savings.

Detailed information about the operations of savings and loan associations is presented in the annual Asset and Liability Trends, published by the Federal Home Loan Bank Board. Small loan company and state-chartered credit union operations in Michigan are covered in the Analysis and Recapitulation of Reports of Regulatory Loan Licensees and Abstracts of Reports of Credit Unions, respectively, of the Financial Institutions Bureau, Michigan Department of Commerce. Similar data on credit unions chartered by the federal government are given in the Annual Report published by the Bureau of Federal Credit Unions. Information on production credit associations is available in the Annual Report of the United States Farm Credit Administration.

The basic source of information about insurance operations in Michigan is the Annual Report of the Michigan Department of Insurance. This includes the home office address and a summary of financial conditions for all companies licensed to do business in Michigan. The annual Life Insurance Fact Book, of the Institute of Life Insurance, presents many facts about the amount of insurance in force, benefit payments, premium collections, and so forth, for the United States, and a good deal of information on a state basis.

Statistics on the number of certified public accountants and real estate brokers and salesmen licensed in each county are tabulated by the Michigan Department of Regulation which licenses these occupations.

The economic importance of finance, insurance, and real estate in each Michigan county (Table XXI-6) was developed from the personal income accounts that are prepared by the Bureau of Economic Analysis in the U. S. Department of Commerce. Personal income statistics are discussed in the narrative section of Chapter VI.

Data on health insurance are included in Chapter III.

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TABLE XXII-1. NUMBER OF BANK, SAVINGS AND LOAN, AND CREDIT UNION OFFICES AND BRANCHES IN MICHIGAN, YEAR END: 1958 - 1977

Year	Commercial banks			Savings and loan		Credit unions[b]		
	Unit banks	Banks with branches	Total offices[a]	Number of associations	Total offices[a]	State chartered	Federally chartered	Total
1958	280	113	886	73	n.a.	625	427	1,052
1959	261	112	916	73	n.a.	673	423	1,096
1960	246	134	958	73	n.a.	716	417	1,133
1961	230	143	990	73	n.a.	763	411	1,174
1962	221	150	1,042	73	n.a.	782	406	1,188
1963	214	153	1,095	72	n.a.	781	406	1,187
1964	193	168	1,166	72	n.a.	782	408	1,190
1965	176	178	1,247	72	207	790	399	1,189
1966	157	190	1,335	71	210	815	379	1,194
1967	151	190	1,390	71	212	814	368	1,182
1968	145	193	1,439	70	222	818	366	1,184
1969	133	199	1,485	70	239	810	371	1,181
1970	129	202	1,534	68	248	787	372	1,159
1971	122	209	1,685	65	290	754	364	1,118
1972	111	221	1,662	65	307	724	368	1,092
1973	107	233	1,740	65	326	706	363	1,069
1974	98	249	1,827	66	360	679	365	1,044
1975	88	263	1,913	67	400	656	367	1,023
1976	85	275	1,993	66	434	630	358	988
1977	82	280	2,066	65	478	611	n.a.	n.a.

SOURCE: Federal Deposit Insurance Corporation, Annual Report, 1958 through 1977 (Washington, D.C.: annually), Table 103 (1977); Federal Home Loan Bank Board, Trends in the Savings and Loan Field, 1958 through 1970, and Asset and Liability Trends, 1971 through 1976 (Washington, D.C.: annually), Table 8 (1976); Federal Home Loan Bank Board, Savings and Home Financing Source Book (Washington, D.C.: 1978), Table 35; and National Credit Union Administration, Annual Report, 1960 through 1977 (Washington, D.C.: annually), Tables 1 and 17 (1977).

a. Main offices plus branches.
b. Branch office data are not available.

n.a.: not available.

TABLE XXII-2. YEAR-END ASSETS OF COMMERCIAL BANKS, SAVINGS AND LOAN ASSOCIATIONS, AND CREDIT UNIONS IN MICHIGAN AND THE UNITED STATES: 1958 - 1978

(In millions of dollars)

Year	Michigan			United States			Michigan as a percentage of United States		
	Commercial banks	Savings & loan assoc.	Credit unions	Commercial banks	Savings & loan assoc.	Credit unions	Commercial banks	Savings & loan assoc.	Credit unions
1958	8,940	1,434	368	237,473	55,139	4,345	3.76	2.60	8.01
1959	9,197	1,644	431	245,415	63,530	5,024	3.75	2.59	8.58
1960	9,716	1,848	494	258,359	71,476	5,653	3.76	2.59	8.73
1961	10,259	2,055	553	277,374	82,135	6,383	3.70	2.50	8.66
1962	11,490	2,356	622	295,983	93,605	7,186	3.88	2.52	8.64
1963	12,358	2,705	709	311,791	107,559	8,131	3.96	2.51	8.72
1964	13,915	3,093	831	345,130	119,355	9,361	4.03	2.59	8.87
1965	15,457	3,341	954	375,394	129,580	10,552	4.12	2.58	9.03
1966	16,977	3,424	1,053	402,946	133,933	11,605	4.21	2.56	9.07
1967	19,108	3,719	1,164	450,713	143,534	12,775	4.24	2.59	9.10
1968	21,190	3,979	1,306	500,238	152,890	14,210	4.24	2.60	9.18
1969	22,684	4,288	1,457	530,715	162,149	15,900	4.27	2.64	9.16
1970	24,456	4,830	1,605	572,682	176,183	17,960	4.27	2.73	8.93
1971	26,568	5,760	1,816	638,010	206,023	21,134	4.16	2.80	8.59
1972	29,078	6,842	2,047	732,519	243,127	24,609	3.97	2.81	8.31
1973	31,627	7,692	2,227	827,081	271,905	28,418	3.82	2.83	7.83
1974	33,147	8,478	2,388	906,385	295,545	31,953	3.66	2.87	7.47
1975	34,585	9,753	2,698	944,656	338,233	37,964	3.66	2.88	7.10
1976	36,914	11,365	2,929	1,004,020	391,907	n.a.	3.68	2.90	n.a.
1977	41,776	13,257	n.a.	1,129,712	459,282	n.a.	3.70	2.89	n.a.
1978	48,165	15,253	n.a.	n.a.	510,753	n.a.	n.a.	2.99	n.a.

TABLE XXII-2. YEAR-END ASSETS OF COMMERCIAL BANKS, SAVINGS AND LOAN ASSOCIATIONS, AND CREDIT UNIONS IN MICHIGAN AND THE UNITED STATES: 1958 - 1978 (cont.)

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, December 1957-1977 (Washington, D. C.: annually), Table A; Federal Home Loan Bank Board, Trends in the Savings and Loan Field 1958 through 1971, Asset and Liability Trends, 1971 through 1976 (Washington, D.C.: annually) Table 8 (1976); Michigan Department of Commerce, Financial Institutions Bureau, Abstract of Reports of Credit Unions, 1960 through 1976 (Lansing: annually), pp. 3, 5 (1976); Federal Home Loan Bank Board, Savings and Home Financing Source Book (Washington, D. C.: 1978), Table 3; Credit Union National Association, CUNA Yearbook, 1977 (Madison, Wisconsin: 1978), p. 7; and Federal Home Loan Bank Board, Combined Financial Statements, 1978 (Washington, D. C.: 1979), Tables 1 and 23.

n.a.: not available.

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1975, 1976, AND 1977

(In thousands of dollars)

Assets	1975	1976	1977
Cash and due from banks--total	4,050,779	4,203,305	4,996,595
Currency and coin	582,476	639,974	704,838
Reserve with Federal Reserve banks	946,375	958,357	946,015
Demand balances with banks in United States	1,081,403	918,311	1,200,180
Other balances with banks in United States	274,341	246,994	114,412
Balances with banks in foreign countries	245,906	563,513	594,322
Cash items in process of collection	920,284	876,156	1,436,828
Securities--total	8,970,279	9,864,213	10,322,572
Investment securities--total	8,944,841	9,766,055	10,251,953
U.S. Treasury securities	3,094,806	3,676,018	3,847,945
Obligations of other United States government agencies	1,095,488	996,751	978,777
Obligations of states and subdivisions	4,480,711	4,793,537	5,113,961
Other bonds, notes and debentures	273,836	299,749	311,270
Corporate stock	n.a.	48,776	46,245
Trading account securities	25,438	49,382	24,374
Federal funds sold and securities purchased under agreements to resell	664,937	1,434,122	1,847,065
Loans net	n.a.	19,909,179	22,813,723
Plus: Reserve for possible loan losses[a]	n.a.	211,790	226,580
Loans--total	9,622,741	20,120,969	23,040,303
Unearned income on loans	n.a.	516,420	556,550
Loans--gross	n.a.	20,637,389	23,596,853
Real estate loans--total	8,418,856	8,896,794	9,970,909
Construction and land development	n.a.	334,615	368,627
Secured by farmland	159,447	172,005	197,826
Secured by 1-4 family residential properties:			
Insured by Federal Housing Administration and guaranteed by Veterans Administration	854,361	828,955	814,041
Conventional	4,992,616	5,262,680	6,072,378

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1975, 1976, AND 1977 (cont.)

(In thousands of dollars)

Assets	1975	1976	1977
Secured by multifamily (5 or more) residential properties:			
Insured by Federal Housing Administration	3,082	4,324	2,068
Conventional	286,858	274,124	263,142
Secured by nonfarm nonresidential properties	2,122,492	2,020,091	2,252,827
Loans to financial institutions--total	n.a.	1,024,397	1,063,315
REIT's and mortgage companies	n.a.	326,918	334,211
Domestic commercial banks	n.a.	63,910	32,606
Banks in foreign countries (includes domestic 1976)	242,474	141,206	173,902
Other depository institutions	n.a.	15,925	7,853
Other financial institutions	866,851	476,438	514,743
Loans for purchasing or carrying securities	361,196	298,461	307,981
Loans to farmers	281,868	334,038	377,522
Commercial and industrial loans (incl. open market paper)	4,756,961	4,841,655	5,664,230
Loans to individual--total	4,039,629	4,561,236	5,437,584
Passenger automobile installment loans	1,411,945	1,709,041	2,231,665
Retail (charge account) credit card plans	491,797	566,853	703,210
Check credit and revolving credit plans	68,307	83,466	94,924
Other retail consumer installment loans:			
Mobile homes, not including travel trailers	300,455	280,718	281,342
Other retail consumer goods	384,315	465,909	535,859
Residential repair and modernization installment loans	289,372	312,207	367,091
Other installment loans for personal expenditures	504,899	559,725	618,738
Single-payment loans for personal expenditures	588,539	563,317	604,756
All other loans	575,771	680,808	775,312
TOTAL LOANS AND SECURITIES	29,178,822	29,773,392	33,136,295

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1975, 1976, AND 1977 (cont.)

(In thousands of dollars)

Assets	1975	1976	1977
Direct lease financing	n.a.	54,750	65,965
Bank premises furniture and fixtures	546,739	583,220	639,032
Real estate owned, other than bank premises	45,471	68,486	77,973
Investments in subsidiaries not consolidated	69,629	69,244	68,668
Customers' liabilities on acceptances outstanding	48,816	60,412	84,086
Other assets	644,543	667,404	860,815
TOTAL ASSETS	34,584,799	36,914,335	41,776,494

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, 1975, 1976, and 1977 (Washington, D.C.: annually), Table 7 (1977).

NOTE: One Michigan commercial bank is not insured.

a. Reserve for loan losses are listed as part of liabilities in 1975.

n.a.: not available.

TABLE XXII-4. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1975, 1976, AND 1977

(In thousands of dollars)

Liabilities, reserves, and capital accounts	1975	1976	1977
Business and personal deposits--total	25,610,185	27,900,742	31,585,775
Individuals, partnerships, and corporations--demand	6,987,636	7,315,537	8,815,778
Individuals, partnerships, and corporations--savings	9,175,169	11,081,464	12,169,240
Individuals and nonprofit organizations--savings	n.a.	10,627,951	11,628,403
Corporations and other profit organizations--savings	n.a.	453,513	540,837
Individuals, partnerships, and corporations--time	8,658,407	8,895,914	9,836,391
Deposits accumulated for payment of personal loans	1,165	1,198	409
Certified and officers' checks, letter of credit, travelers' checks, and so forth	787,808	606,629	763,957
Government deposits--total	3,330,599	3,390,720	3,948,793
U.S. government--demand	137,597	122,497	307,089
U.S. government--savings	n.a.	1,967	591
U.S. government--time	1,311	2,286	2,046
States and subdivisions--demand	742,896	688,384	708,994
States and subdivisions--savings	n.a.	768,670	620,599
States and subdivisions--time	2,448,795	1,806,916	2,309,474
Domestic interbank deposits--total	447,717	408,137	506,862
Commercial banks in the United States--demand	379,813	386,177	478,589
Commercial banks in the United States--savings	n.a.	150	227
Commercial banks in the United States--time	67,786	20,652	27,103
Mutual savings banks in the United States--demand	98	1,138	443
Mutual savings banks in the United States--savings	n.a.	0	0
Mutual savings banks in the United States--time	20	20	500
Foreign government and bank deposits--total	59,065	56,191	52,312
Foreign governments, central banks, etc.--demand	1,067	759	506
Foreign governments, central banks, etc.--savings	n.a.	0	0
Foreign governments, central banks, etc.--time	15,877	9,102	8,270
Banks in foreign countries--demand	35,018	38,198	33,916
Banks in foreign countries--savings	n.a.	0	0
Banks in foreign countries--time	7,103	8,132	9,520
TOTAL DEPOSITS	29,066,247	31,755,790	36,093,742
Demand	9,071,933	9,159,319	11,109,372
Savings	n.a.	11,852,251	12,790,657
Time	20,375,633	10,744,220	12,193,713

TABLE XXII-4. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1975, 1976, AND 1977 (cont.)

(In thousands of dollars)

Liabilities, reserves, and capital accounts	1975	1976	1977
Miscellaneous liabilities--total	2,283,306	2,360,336	2,648,185
Federal funds purchased (borrowed) and securities sold under agreements to repurchase	1,343,672	1,758,132	1,919,900
Other liabilities for borrowed money	48,213	22,564	59,733
Mortgage indebtedness	14,321	16,250	21,704
Acceptances outstanding	48,816	60,412	84,086
Other liabilities	828,284	502,978	562,762
TOTAL LIABILITIES	31,730,872	34,116,126	38,741,927
Reserves for loans and securities[a]	323,097	0	0
Subordinated notes and debentures	178,246	179,830	199,808
Equity capital--total	2,352,567	2,618,379	2,834,759
Preferred stock--par value	9,902	2,290	2,190
Common stock--par value	529,848	552,284	577,282
Surplus	1,018,482	1,064,403	1,137,437
Undivided profits	767,626	944,972	1,069,221
Reserve for contingencies and other capital reserves	26,709	54,673	48,629
TOTAL LIABILITIES AND EQUITY CAPITAL	34,584,799	36,914,335	41,776,494

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, 1975, 1976, and 1977 (Washington, D.C.: annually), Table 7 (1977).
NOTE: One Michigan commercial bank is not insured.
a. Reserves for loan losses are listed as part of assets in 1976 and 1977.
n.a.: not available.

TABLE XXII-5. NUMBER OF BANKS OPERATING IN AND BANKING OFFICES LOCATED IN MICHIGAN, BY COUNTY: 30 JUNE 1978

County	Banks	Banking offices	County	Banks	Banking offices
Alcona	2	3	Lake	1	2
Alger	3	5	Lapeer	7	18
Allegan	7	18	Leelanau	3	5
Alpena	3	13	Lenawee	11	30
Antrim	5	6	Livingston	6	18
Arenac	3	4	Luce	1	1
Baraga	2	2	Mackinac	3	7
Barry	6	7	Macomb	25	120
Bay	8	34	Manistee	2	9
Benzie	4	5	Marquette	7	22
Berrien	10	47	Mason	3	8
Branch	3	12	Mecosta	4	14
Calhoun	9	26	Menominee	4	9
Cass	5	13	Midland	4	15
Charlevoix	4	8	Missaukee	2	3
Cheboygan	2	8	Monroe	8	26
Chippewa	4	12	Montcalm	9	16
Clare	3	7	Montmorency	2	3
Clinton	4	14	Muskegon	6	28
Crawford	1	4	Newaygo	7	9
Delta	6	13	Oakland	35	219
Dickinson	5	10	Oceana	3	6
Eaton	9	20	Ogemaw	3	4
Emmet	4	11	Ontonagon	3	5
Genesee	11	82	Osceola	4	4
Gladwin	2	4	Oscoda	1	2
Gogebic	4	5	Otsego	2	5
Grand Traverse	5	24	Ottawa	14	42
Gratiot	5	11	Presque Isle	3	3
Hillsdale	6	12	Roscommon	2	6
Houghton	5	13	Saginaw	9	48
Huron	9	16	St. Clair	8	25
Ingham	12	56	St. Joseph	9	20
Ionia	8	16	Sanilac	7	14
Iosco	3	8	Schoolcraft	2	4
Iron	4	7	Shiawassee	7	20
Isabella	6	15	Tuscola	12	19
Jackson	7	38	Van Buren	8	16
Kalamazoo	6	55	Washtenaw	13	60
Kalkaska	1	2	Wayne	27	406
Kent	21	123	Wexford	3	13
Keweenaw	1	1	TOTAL	364	2,094

SOURCE: Federal Deposit Insurance Corporation, Summary of Deposits in all Commercial and Mutual Savings Banks, June 30, 1978 (Washington D.C.: 1979(, Table 2.

NOTE: Several banks operate in more than one county.

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1976 AND 1977

County	Labor and proprietors' earnings in finance, insurance, and real estate establishments			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Arenac	8.94	2,863	8.03	2,995
Livingston	6.90	11,765	7.21	14,293
Houghton	6.49	6,333	6.91	7,426
Gladwin	5.78	1,660	5.89	1,992
Lake	5.12	587	5.78	724
Oakland	5.41	295,316	5.66	370,605
Roscommon	5.23	1,565	5.19	1,800
Missaukee	4.58	759	4.74	873
Grand Traverse	4.78	11,198	4.51	12,329
Wayne	4.69	799,346	4.42	843,699
Ingham	4.27	84,092	4.31	96,089
Kent	4.21	98,939	4.15	111,134
Cheboygan	3.75	2,080	4.08	2,539
Iron	3.67	1,385	3.84	1,585
Montmorency	3.93	576	3.79	657
Clare	3.67	1,525	3.68	1,737
Clinton	3.51	3,098	3.56	3,637
Wexford	3.30	2,814	3.33	3,404
Emmet	3.17	2,761	3.31	3,265
Mecosta	3.13	2,542	3.29	2,935
Cass	2.51	3,093	3.12	4,346
Eaton	2.92	4,216	3.11	5,140
St. Clair	3.02	13,098	3.07	15,155
Berrien	2.62	20,789	3.05	27,587
Crawford	2.78	713	3.05	872
Menominee	2.58	1,891	3.03	2,450
Saginaw	3.03	40,600	3.02	46,259
Gogebic	2.51	1,258	2.98	1,610
Newaygo	2.82	2,139	2.97	2,428
Kalamazoo	2.80	33,016	2.91	38,536
Charlevoix	2.62	1,671	2.85	2,113
Benzie	2.59	703	2.83	893
Shiawassee	2.50	4,630	2.79	5,636
Delta	3.01	4,420	2.78	4,291
Schoolcraft	3.21	843	2.77	801

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in finance, insurance, and real estate establishments			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Ionia	3.72	3,725	2.77	4,355
Manistee	2.63	1,943	2.74	2,338
Chippewa	2.19	2,741	2.66	3,222
Lapeer	2.51	4,236	2.66	5,020
Mason	2.60	2,194	2.63	2,471
Iosco	2.07	2,148	2.56	2,794
Jackson	2.38	16,938	2.48	19,744
Sanilac	2.64	3,062	2.46	3,213
Antrim	2.51	936	2.44	1,061
Lenawee	2.22	7,971	2.44	9,861
Bay	2.34	11,078	2.43	13,099
Huron	2.24	2,770	2.37	3,235
Gratiot	2.29	3,717	2.37	4,176
Monroe	2.19	7,983	2.36	10,053
Alger	2.38	567	2.36	611
Otsego	2.45	1,355	2.34	1,500
Branch	2.44	3,738	2.31	4,165
Marquette	1.98	6,423	2.30	7,952
Van Buren	2.31	3,735	2.28	4,110
Oscoda	(a)	(a)	2.27	281
Oceana	2.29	877	2.27	1,032
Ottawa	2.20	12,257	2.21	14,601
Muskegon	2.20	15,770	2.21	17,450
Isabella	2.09	3,325	2.20	3,859
Montcalm	2.02	3,000	2.11	3,577
St. Joseph	2.10	4,546	2.10	5,101
Dickinson	1.81	2,075	2.03	2,602
Mackinac	1.74	571	1.99	718
Ontonagon	1.81	894	1.96	965
Genesee	1.91	56,100	1.94	67,561
Presque Isle	1.30	573	1.88	748
Osceola	1.73	831	1.85	1,012
Macomb	1.59	51,899	1.83	70,984
Washtenaw	1.75	30,953	1.76	36,163
Ogemaw	1.61	571	1.70	672

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in finance, insurance and real estate establishments			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Tuscola	1.58	2,426	1.68	2,867
Luce	1.57	443	1.59	494
Allegan	1.33	2,444	1.42	2,988
Midland	1.17	5,527	1.16	6,387
Alcona	(a)	(a)	(a)	(a)
Alpena	(a)	(a)	(a)	(a)
Baraga	(a)	(a)	(a)	(a)
Barry	(a)	(a)	(a)	(a)
Calhoun	(a)	(a)	(a)	(a)
Hillsdale	(a)	(a)	(a)	(a)
Kalkaska	(a)	(a)	(a)	(a)
Keweenaw	(a)	(a)	(a)	(a)
Leelanau	(a)	(a)	(a)	(a)
Michigan	3.73	1,815,491	3.71	2,057,249
United States	5.46	57,289,000	5.57	64,931,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all counties is shown in Table VI-13.

a: Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XXII-7. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN EARNINGS IN FINANCE, INSURANCE, AND REAL ESTATE: 1976-1977

County	Percentage change 1972-1977	Percentage change 1976-1977	County	Percentage change 1972-1977	Percentage change 1976-1977
Cass	135	41	Midland	66	16
Macomb	80	37	Ogemaw	64	16
Berrien	67	33	St. Clair	62	16
Presque Isle	67	31	Mecosta	82	15
Menominee	(a)	30	Missaukee	89	15
Gogebic	49	28	Roscommon	56	15
Iosco	44	28	Clare	46	14
Benzie	84	27	Ingham	66	14
Charlevoix	81	26	Iron	76	14
Mackinac	109	26	Montmorency	58	14
Monroe	78	26	Newaygo	57	14
Dickinson	89	25	Saginaw	73	14
Oakland	133	25	Antrim	44	13
Lenawee	72	24	Mason	56	13
Marquette	88	24	Gratiot	45	12
Lake	106	23	Kent	53	12
Allegan	95	22	Luce	75	12
Cheboygan	66	22	St. Joseph	37	12
Crawford	93	22	Branch	62	11
Eaton	57	22	Muskegon	53	11
Osceola	95	22	Otsego	126	11
Shiawassee	66	22	Grand Traverse	100	10
Livingston	86	21	Van Buren	(a)	10
Wexford	100	21	Alger	52	8
Genesee	57	20	Ontonagon	63	8
Manistee	69	20	Arenac	512	5
Lapeer	70	19	Sanilac	74	5
Montcalm	70	19	Wayne	22	5
Ottawa	80	19	Delta	39	- 3
Bay	79	18	Schoolcraft	51	- 5
Chippewa	77	18	Alcona	(a)	(a)
Emmet	94	18	Alpena	(a)	(a)
Oceana	53	18	Baraga	(a)	(a)
Tuscola	62	18	Barry	(a)	(a)
Houghton	105	17	Calhoun	(a)	(a)
Huron	59	17	Hillsdale	(a)	(a)
Ionia	81	17	Kalkaska	(a)	(a)
Jackson	44	17	Keweenaw	(a)	(a)
Kalamazoo	(a)	17	Leelanau	(a)	(a)
Washtenaw	53	17	Oscoda	(a)	(a)
Clinton	61	17			
Isabella	(a)	16	Michigan	52	13
Gladwin	43	16	United States	57	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.
NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977. These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Table VI-2 and VI-3. The earnings residence adjustment for all counties is shown in Table VI-13.
a. Withheld to avoid the possibility of disclosing payroll information for a single company.

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1978

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Alcona	$ 3,253	$ 7,697	$ 6,944	$ 323	$ 885	$ 19,275
Alger	4,524	12,242	9,288	962	3,687	31,248
Allegan	32,710	60,174	55,900	4,302	17,082	171,112
Alpena	19,793	49,657	45,495	5,387	11,094	132,452
Antrim	9,400	20,835	17,010	1,878	4,406	53,868
Arenac	7,109	16,886	19,920	1,568	2,503	48,699
Baraga	5,496	9,596	9,626	1,146	3,251	29,421
Barry	15,700	29,334	19,766	2,998	6,425	74,588
Bay	79,287	177,108	107,333	10,916	19,661	402,870
Benzie	6,190	16,742	14,032	1,263	2,238	41,458
Berrien	133,952	123,449	158,665	18,720	61,478	502,058
Branch	30,544	36,623	60,045	4,944	15,122	148,645
Calhoun	131,456	152,029	119,111	15,088	38,757	478,434
Cass	22,922	36,833	37,305	4,322	9,861	113,340
Charlevoix	15,630	30,320	29,148	2,560	4,938	83,473
Cheboygan	12,701	28,689	23,005	4,315	3,435	73,432
Chippewa	17,321	39,104	41,851	7,652	3,970	111,049
Clare	13,218	27,798	25,218	5,640	3,477	76,117
Clinton	18,817	40,937	41,961	2,887	17,623	122,996
Crawford	5,166	7,179	7,668	1,785	2,721	24,850
Delta	22,769	54,246	65,842	3,556	21,062	169,899
Dickinson	21,251	33,549	42,041	3,933	3,579	105,277
Eaton	33,801	65,771	45,876	3,057	18,511	187,950
Emmet	22,846	44,512	55,729	3,232	10,646	138,529
Genesee	299,120	698,120	443,838	57,362	249,861	1,792,213

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1978 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Gladwin	$ 7,892	$ 19,341	$ 13,475	$ 2,056	$ 4,409	$ 47,591
Gogebic	13,156	29,373	36,552	2,234	4,348	86,557
Grand Traverse	65,557	99,560	108,048	5,451	28,926	312,922
Gratiot	37,213	68,502	50,272	6,503	11,090	174,408
Hillsdale	25,619	44,976	59,437	4,314	12,898	148,845
Houghton	21,559	35,140	42,296	8,038	9,735	118,003
Huron	26,511	63,937	81,516	5,250	11,356	190,490
Ingham	234,462	391,737	247,331	48,249	120,538	1,064,300
Ionia	23,071	43,809	58,839	3,899	10,892	141,470
Iosco	12,755	31,349	19,572	2,886	5,431	73,820
Iron	9,401	19,810	18,782	2,130	3,383	53,939
Isabella	26,389	47,905	35,723	3,270	6,292	121,049
Jackson	128,648	155,250	120,156	21,779	38,285	469,926
Kalamazoo	176,868	214,339	198,461	16,955	46,669	669,142
Kalkaska	3,918	9,983	7,311	635	1,949	23,977
Kent	453,071	651,112	641,038	31,699	210,696	2,039,735
Keweenaw	591	1,254	1,304	225	556	3,967
Lake	2,709	4,527	3,119	1,048	401	11,969
Lapeer	30,499	63,564	67,203	7,323	14,591	184,843
Leelanau	3,931	14,421	12,301	222	3,707	34,939
Lenawee	70,729	137,303	117,942	8,501	23,351	360,450
Livingston	43,164	66,637	44,561	6,339	15,892	179,638
Luce	3,180	5,966	4,027	792	1,576	15,656
Mackinac	6,143	12,387	6,771	1,302	2,096	28,817
Macomb	394,580	872,489	546,084	42,553	181,623	2,055,555

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1978 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Manistee	$ 12,137	$ 48,813	$ 27,778	$ 3,106	$ 7,946	$100,469
Marquette	42,459	87,000	100,656	9,749	36,985	282,902
Mason	16,645	22,149	44,884	2,861	4,764	91,983
Mecosta	15,161	28,696	33,116	3,743	5,101	86,577
Menominee	15,256	31,363	32,893	2,945	5,019	88,131
Midland	50,130	89,623	56,985	10,341	19,387	228,286
Missaukee	4,288	10,590	8,684	664	3,663	28,076
Monroe	54,167	139,075	85,083	14,661	40,773	339,846
Montcalm	26,663	45,656	63,574	5,784	8,419	151,563
Montmorency	4,424	12,222	9,187	770	1,790	28,813
Muskegon	94,932	192,652	140,530	10,442	32,863	476,475
Newaygo	16,274	26,821	32,620	3,445	6,617	86,559
Oakland	1,032,382	1,657,174	1,211,451	66,277	364,269	4,380,055
Oceana	9,745	15,136	19,172	1,956	4,646	50,940
Ogemaw	8,865	21,926	16,611	2,012	4,386	54,056
Ontonagon	5,980	9,340	13,609	963	3,633	33,783
Osceola	7,700	22,053	13,597	1,734	1,975	47,411
Oscoda	2,782	7,596	5,697	516	1,783	18,509
Otsego	10,969	22,810	16,859	1,044	4,104	56,305
Ottawa	113,868	196,180	171,848	11,026	49,112	547,887
Presque Isle	7,359	16,788	16,228	1,383	3,267	45,061
Roscommon	9,455	32,651	23,122	3,295	6,404	75,962
Saginaw	176,934	301,794	170,856	19,065	83,930	784,820
St. Clair	80,875	187,597	186,494	15,430	42,137	518,796
St. Joseph	43,214	61,780	67,276	5,651	17,132	196,939

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1978 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Sanilac	$25,194	$ 53,622	$ 60,109	$ 3,827	$ 9,786	$153,757
Schoolcraft	6,025	15,400	14,423	1,201	2,085	39,672
Shiawassee	39,118	90,462	74,434	5,146	17,407	228,523
Tuscola	31,177	68,234	57,680	6,041	12,838	177,005
Van Buren	32,238	55,430	49,485	6,917	14,287	160,070
Washtenaw	233,381	301,845	207,792	31,423	102,454	891,083
Wayne	3,531,284	3,824,301	3,388,069	400,554	853,000	13,018,766
Wexford	16,364	49,001	53,073	2,354	6,450	128,457
TOTAL	8,584,037	12,669,881	10,518,613	1,059,775	3,085,375	38,342,798

SOURCE: Federal Deposit Insurance Corporation, Summary of Deposits in all Commercial and Mutual Savings Banks, June 30, 1978 (Washington, D.C.: 1979), Table 2.

a. Individuals, partnerships, and corporations.

b. Includes U.S. government deposits, deposits of foreign governments, certified checks, and other types of deposits not shown separately.

TABLE XXII-9. NUMBER, ASSETS, FIRST MORTGAGE LOANS, AND SAVINGS CAPITAL OF MICHIGAN SAVINGS AND LOAN ASSOCIATIONS, 31 DECEMBER: 1951-1977

(In thousands of dollars)

Year	Number of associations	Total assets	Mortgage loans and contract	Savings capital
1951	70	457,799	363,600	386,754
1952	72	537,695	423,902	468,165
1953	73	650,738	513,318	572,277
1954	73	772,502	612,860	680,026
1955	73	919,084	735,198	805,887
1956	74	1,057,135	844,050	928,824
1957	74	1,250,075	974,758	1,121,500
1958	73	1,434,317	1,115,464	1,281,532
1959	73	1,643,904	1,292,979	1,456,198
1960	73	1,847,920	1,460,049	1,650,087
1961	73	2,054,557	1,650,398	1,830,714
1962	73	2,356,491	1,893,083	2,100,912
1963	72	2,705,419	2,207,693	2,400,485
1964	72	3,093,414	2,557,042	2,773,569
1965	72	3,340,838	2,845,584	2,944,913
1966	71	3,424,042	2,925,831	2,996,855
1967	71	3,719,205	3,174,279	3,285,199
1968	70	3,979,388	3,417,190	3,508,187
1969	70	4,288,115	3,695,319	3,677,844
1970	68	4,830,457	4,094,409	4,205,130
1971	65	5,759,871	4,898,408	5,012,060
1972	65	6,842,107	5,798,053	6,043,166
1973	65	7,691,953	6,596,649	6,765,835
1974	66	8,478,123	7,224,272	7,334,501
1975	67	9,753,163	8,092,134	8,642,753
1976	66	11,364,523	9,379,124	10,180,818
1977	66	13,263,886	11,052,458	11,768,151

SOURCE: Federal Home Loan Bank Board, Trends in the Savings and Loan Field, 1951 through 1970 (name was changed in 1971), and Asset and Liability Trends, 1971 through 1977 (Washington, D.C.: annually), Table 8, 1977.

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978

County and association[a]	Total assets		
	1976	1977	1978
Alpena			
First Federal S&L, Alpena	29,210,170	36,549,854	40,836,864
Barry			
Hastings S&L, Hastings	18,548,604	24,004,171	26,848,505
Bay			
Mutual S&L, Bay City	265,131,804	330,863,522	369,054,909
Berrien			
First Federal S&L, Niles	97,949,875	119,436,781	127,682,019
LaSalle Federal S&L, Buchanan	53,551,008	66,855,215	79,424,103
New Buffalo S&L, New Buffalo	15,268,651	20,861,566	23,936,902
People Savings Assn., Benton Harbor	101,366,047	111,624,648	112,680,971
St. Joseph S&L, St. Joseph	62,322,911	76,131,569	84,962,161
Branch			
Branch County Federal S&L, Coldwater	34,670,866	47,266,627	52,743,949
Calhoun			
First Federal S&L, Battle Creek[b]	149,376,132	179,106,272	--
Homestead S&L, Albion	12,993,815	14,623,326	16,089,398
Marshall S&L, Marshall	12,520,420	14,518,351	16,433,253
Peoples S&L, Battle Creek	62,431,644	77,963,658	87,027,074
Cass			
First Savings Assn., Dowagiac	41,285,538	51,666,925	52,645,476
Eaton			
Eaton Federal S&L, Charlotte	41,208,972	51,320,359	55,332,418
Genesee			
First Federal S&L, Flint	124,919,004	157,065,342	183,674,848
Grand Traverse			
Northwestern S&L, Traverse City	32,273,310	46,182,796	56,705,241
Houghton			
Detroit & Northern S&L, Hancock	570,212,810	687,197,000	761,883,000
Ingham			
Capitol S&L, Lansing	298,591,596	337,657,112	443,952,654
First State Savings Assn., East Lansing	57,546,769	64,431,782	68,091,179
Union S&L, Lansing	79,669,414	103,234,238	108,615,120
Ionia			
Belding S&L, Belding	8,780,125	9,798,247	10,690,880
Iron			
Iron S&L, Iron River	4,140,619	5,005,181	5,461,419
Jackson			
First Federal S&L, Jackson	65,282,931	83,297,630	93,509,368
Security S&L, Jackson	86,770,203	109,076,800	124,015,360
Kalamazoo			
Fidelity Federal S&L, Kalamazoo	101,362,350	124,647,594	138,459,913
First Federal S&L, Kalamazoo	211,682,895	256,667,112	290,174,565
Kalamazoo S&L, Kalamazoo	88,438,047	120,161,171	136,033,374

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978 (cont.)

County and association[a]	Total assets		
	1976	1977	1978
Kent			
Grand Rapids Mutual Federal S&L, Grand Rapids	108,320,435	135,786,606	159,523,746
Kentwood S&L, Kentwood	5,981,847	20,429,263	33,050,000
Lowell S&L, Lowell[c]	5,745,567	7,087,970	7,644,000
Mutual Home Federal S&L, Grand Rapids	205,945,744	258,605,399	289,891,064
West Side Federal S&L, Grand Rapids	45,390,418	53,369,661	58,479,672
Lenawee			
First Federal S&L, Adrian	94,137,973	116,971,941	132,885,474
Livingston			
First Federal S&L, Howell	83,550,608	106,866,254	127,614,014
Macomb			
Macomb S&L, St. Clair Shores	11,105,026	13,288,850	14,052,802
Mason			
Ludington Federal S&L, Ludington	19,280,723	25,353,598	26,427,789
Midland			
Midland Federal S&L, Midland	44,948,345	53,497,307	62,836,290
Monroe			
Peoples Federal S&L, Monroe	139,518,637	175,577,744	213,713,215
Muskegon			
Muskegon Federal S&L, Muskegon	159,342,961	198,600,000	209,916,209
Oakland			
American Federal S&L, Southfield	523,654,413	597,418,806	744,702,686
First Farmington S&L, Farmington	19,232,841	23,309,374	25,612,905
First Federal S&L of Oakland, Pontiac	292,879,863	404,898,456	451,229,850
Metropolitan Savings Assn., Farmington	317,730,658	341,454,955	327,838,721
Standard Federal S&L, Troy	1,661,240,123	2,087,100,913	2,467,173,763
Surety Federal S&L, Southfield	86,218,997	109,594,414	133,544,457
Ottawa			
Ottawa S&L, Holland	86,016,903	108,104,177	129,540,256
Saginaw			
First S&L, Saginaw	316,182,760	407,796,323	485,498,941
Landmark S&L, Saginaw	10,824,813	25,063,034	34,987,200
Family Federal S&L, Saginaw	246,057,756	301,155,498	338,162,438
St. Clair			
Citizens Federal S&L, Port Huron	130,345,155	163,598,053	176,693,441
St. Joseph			
Sturgis S&L, Sturgis	27,171,941	36,500,327	43,360,950
Three Rivers S&L, Three Rivers	45,209,135	59,151,156	61,469,455
Van Buren			
Van Buren S&L, South Haven	20,375,097	24,057,025	28,955,778

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978 (cont.)

County and association[a]	Total assets		
	1976	1977	1978
Washtenaw			
Ann Arbor Federal S&L, Ann Arbor[b]	314,094,158	388,115,957	678,822,394
First Savings Assn., Ypsilanti	14,850,605	15,968,613	18,181,933
Michigan S&L, Ann Arbor	6,075,329	15,421,036	26,561,492
Wayne			
Colonial Federal S&L, Grosse Pte. Woods	135,497,037	164,159,783	183,496,977
Dearborn Federal S&L, Dearborn	97,910,660	121,964,877	136,534,651
Detroit Federal S&L, Detroit	67,261,624	70,003,713	82,764,280
Down River Federal S&L, Taylor	237,101,946	289,308,864	330,287,091
First Federal S&L, Dearborn	104,084,837	156,054,641	178,744,233
First Federal S&L, Detroit	2,025,912,868	2,514,611,888	2,935,576,130
Guaranty Federal S&L, Wyandotte	95,792,509	125,134,621	135,537,236
Home Federal S&L, Detroit	21,136,627	21,666,508	24,013,644
Peoples Federal S&L, Detroit	129,919,370	152,702,781	168,714,130

SOURCE: Michigan Savings and Loan League, Facts and Figures (Lansing: 1977); and Federal Home Loan Bank of Indianapolis, 1978 Roster of Members (Indianapolis: 1978).

NOTE: S&L stands for savings and loan.

a. There are no savings and loan associations headquartered in counties not listed, although there may be branch offices of Michigan's 65 savings and loan associations in these counties.

b. Ann Arbor Federal Savings and Loan and First Savings and Loan of Battle Creek merged effective 1 April 1978.

c. Lowell Savings and Loan is uninsured.

TABLE XXII-11. MORTGAGE LOANS MADE BY INSURED SAVINGS ASSOCIATIONS IN MICHIGAN: 1959-1977

(In thousands of dollars)

Year	Home construction	Home purchase	Other purposes		Total loans
			Construction and purchase of other real property	Refinancing and all other	
1959	98,266	167,702	70,690[a]		336,658[b]
1960	85,792	151,656	67,961[a]		305,409[b]
1961	80,616	153,593	85,704[a]		319,913[b]
1962	90,230	213,037	91,644[a]		394,911[b]
1963	109,696	270,384	111,685[a]		494,765[b]
1964	130,866	292,713	111,109[a]		534,688[b]
1965	136,624	321,444	128,924[a]		586,992[b]
1966	94,878	207,356	90,641[a]		392,875[b]
1967	107,003	319,044	41,728	86,821	554,596
1968	115,835	345,650	46,189	85,213	592,886
1969	113,206	337,682	60,902	80,226	592,016
1970	97,045	362,068	104,978	83,050	647,140
1971	198,218	689,750	137,024	201,379	1,226,371
1972	232,521	825,513	175,907	240,319	1,474,260
1973	281,041	824,915	142,900	170,910	1,419,766
1974	166,197	681,288	129,048	161,327	1,137,860
1975	174,355	924,529	127,557	200,978	1,427,418
1976	257,075	1,381,946	145,396	269,399	2,053,816
1977	360,000	1,956,000	148,000	357,000	2,820,000

SOURCE: Federal Home Loan Bank Board, Savings and Home Financing Source Book, 1959 through 1977 (Washington, D.C.: annually), Table 15 (1977).

a. Amount represents total of "other purposes" category.

b. VA loans included in total.

TABLE XXII-12. NUMBER OF INSURED SAVINGS AND LOAN ASSOCIATIONS OPERATING IN AND OFFICES LOCATED IN MICHIGAN, BY COUNTY: 30 SEPTEMBER 1977

County	Associations	Offices	County	Associations	Offices
Alcona	0	0	Lake	0	0
Alger	0	0	Lapeer	2	2
Allegan	3	4	Leelanau	0	0
Alpena	2	3	Lenawee	2	5
Antrim	0	0	Livingston	2	6
Arenac	1	1	Luce	0	0
Baraga	0	0	Mackinac	0	0
Barry	3	3	Macomb	11	34
Bay	3	9	Manistee	1	1
Benzie	0	0	Marquette	1	1
Berrien	6	21	Mason	2	2
Branch	1	3	Mecosta	1	1
Calhoun	5	13	Menominee	1	1
Cass	3	4	Midland	2	4
Charlevoix	1	1	Missaukee	0	0
Cheboygan	1	1	Monroe	3	9
Chippewa	1	1	Montcalm	1	1
Clare	1	1	Montmorency	0	0
Clinton	1	1	Muskegon	4	6
Crawford	1	1	Newaygo	1	1
Delta	1	1	Oakland	11	62
Dickinson	1	1	Oceana	1	1
Eaton	5	6	Ogemaw	1	1
Emmet	2	2	Ontonagon	0	0
Genesee	3	14	Osceola	1	1
Gladwin	1	1	Oscoda	0	0
Gogebic	0	0	Otsego	1	1
Grand Traverse	2	2	Ottawa	5	8
Gratiot	2	3	Presque Isle	1	1
Hillsdale	2	2	Roscommon	0	0
Houghton	1	1	Saginaw	5	20
Huron	2	3	St. Clair	2	7
Ingham	3	14	St. Joseph	4	5
Ionia	2	3	Sanilac	2	2
Iosco	2	2	Schoolcraft	0	0
Iron	1	1	Shiawassee	2	4
Isabella	2	2	Tuscola	3	3
Jackson	2	5	Van Buren	6	7
Kalamazoo	5	20	Washtenaw	4	17
Kalkaska	1	1	Wayne	16	100
Kent	6	12	Wexford	1	1
Keweenaw	0	0			

SOURCE: Federal Home Loan Bank Board, FSLIC Savings and Loan Associations, September 30, 1977, Summary of Savings Accounts by Geographic Area (Washington, D.C.: 1978), Tables 3 and 5.

TABLE XXII-13. STATE AND FEDERALLY CHARTERED CREDIT UNIONS IN MICHIGAN: 31 DECEMBER 1961-1977

Year	Number	Membership	Loans to members (In thousands of dollars)	Assets (In thousands of dollars)
		State		
1961	763	527,912	246,717	309,105
1962	782	569,244	283,280	349,209
1963	781	628,346	323,693	404,687
1964	782	708,587	380,551	484,197
1965	790	772,298	445,437	561,467
1966	815	865,958	448,359	650,104
1967	814	941,305	592,196	746,410
1968	818	1,030,784	694,117	858,573
1969	810	1,112,939	777,181	973,330
1970	787	1,175,788	814,870	1,096,997
1971	754	1,199,578	837,039	1,248,321
1972	724	1,249,293	913,465	1,402,713
1973	706	1,303,827	1,014,893	1,501,612
1974	679	1,309,000	1,059,746	1,603,246
1975	656	1,374,000	1,179,342	1,820,193
1976	630	1,417,587	1,338,991	1,910,592
1977	611	1,501,371	1,650,475	2,297,283
		Federal		
1961	411	442,519	187,347	244,173
1962	406	464,996	210,471	272,524
1963	406	498,141	237,275	304,391
1964	408	529,832	269,211	346,619
1965	399	558,397	312,176	392,328
1966	379	566,314	323,120	403,258
1967	368	567,350	329,368	417,566
1968	366	581,189	366,425	447,004
1969	371	610,448	408,478	483,522
1970	372	631,940	415,800	507,796
1971	364	654,871	461,374	567,274
1972	368	690,887	520,926	644,033
1973	363	737,751	591,280	724,900
1974	365	779,534	632,718	784,452
1975	367	809,200	710,035	877,520
1976	358	874,040	861,099	1,018,098
1977	n.a.	n.a.	n.a.	n.a.

SOURCE: National Credit Union Administration, Annual Report, 1960 through 1976 (Washington, D.C.: annually), Tables 1 and 17 (1976); and Michigan Department of Commerce, Financial Institutions Bureau, Abstracts of Reports of Credit Unions, 1960 through 1976 (Lansing: annually), pp. 3,5 (1977).

n.a.: not available.

TABLE XXII-14. NUMBER, LOANS OUTSTANDING, AND AVERAGE INVESTED ASSETS OF MICHIGAN SMALL LOAN COMPANIES: 1960-1977

Year	Number of licensees	Loans outstanding 31 December[a]	Average invested assets[a]
1960	548	177,036	187,369
1961	584	177,369	188,741
1962	603	181,240	186,000
1963	608	248,081	205,070
1964	634	281,583	271,983
1965	655	304,700	301,897
1966	675	323,872	323,615
1967	677	334,674	338,073
1968	691	345,413	347,609
1969	676	357,969	362,409
1970	626	346,625	365,306
1971	595	332,115	381,379
1972	597	395,160	397,046
1973	593	412,348	433,592
1974	550	391,783	445,643
1975	461	349,687	406,339
1976	415	326,921	356,701
1977	387	332,526	351,956

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Analysis and Recapitulation of Reports of Regulatory Loan Licensees, 1974 and 1977 (Lansing: annually), p. 5 (1977).

a. In thousands of dollars.

TABLE XXII-15. ASSETS AND LIABILITIES OF MICHIGAN SMALL LOAN COMPANIES: 31 DECEMBER 1974-1976

(In thousands of dollars)

Assets	1974	1975	1976
Cash on hand and in bank	2,659	2,204	1,633
Loans receivable (net of reserve for bad debts)	391,783	349,687	326,921
Real estate (less depreciation)	432	452	404
Furniture, fixtures, and equipment (less depreciation)	2,028	1,899	1,610
Deferred charges and prepaid expense	1,256	992	492
Other assets	2,721	2,779	2,895
Total assets used in the regulatory loan business	400,879	358,013	333,955
Other assets not used in the regulatory loan business	64,015	52,701	57,073
TOTAL ASSETS	464,894	410,714	391,028
Liabilities			
Accounts and notes payable:			
Bank	10,584	9,266	8,791
Due to parent company of affiliate	246,801	213,465	206,969
Other short-term notes and accounts	24,770	31,968	22,978
Bonds and long-term notes	9,208	9,972	9,551
Other liabilities:			
Accrued expenses	1,002	1,013	464
Dealer reserves	1,418	1,652	1,864
Other	405	381	318
Expense reserves:			
Reserves for license and taxes	310	369	533
Other expense reserves	373	610	692
Reserve for bad debts	11,748	10,869	9,753
Branch office capital	123,331	101,349	97,673
Net worth	1,555	1,030	978
Capital stock:			
Preferred	1,001	929	888
Common	7,792	7,423	6,303
Appropriated surplus or capital reserves	8,118	8,387	8,184
Earned surplus (including undivided profits)	16,478	12,031	15,154
TOTAL LIABILITIES AND CAPITAL	464,894	410,714	391,028

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Analysis and Recapitulation of Reports of Regulatory Loan Licensees, 1974 through 1976 (Lansing: annually), p. 3 (1976).

TABLE XXII-16. LIFE INSURANCE IN FORCE IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1964-1977

(In millions of dollars)

Year	Ordinary	Group	Industrial	Credit	Total
			Michigan		
1964	17,883	15,883	1,444	2,632	37,842
1965	19,645	19,117	1,448	3,247	43,457
1966	21,477	21,332	1,422	3,593	47,824
1967	23,202	23,180	1,381	3,639	51,402
1968	25,177	25,895	1,377	4,060	56,509
1969	27,097	27,936	1,353	4,415	60,801
1970	28,846	31,076	1,321	4,510	65,753
1971	31,012	34,615	1,340	5,131	72,098
1972	33,314	37,602	1,340	5,847	78,103
1973	35,867	43,569	1,318	5,460	86,214
1974	38,188	49,309	1,287	5,306	94,090
1975	40,093	55,184	1,265	5,494	102,036
1976	43,323	61,538	1,218	5,765	111,844
1977	46,995	67,763	1,187	6,031	121,976
			United States		
1964	457,868	253,620	39,833	46,487	797,808
1965	499,638	308,078	39,818	53,020	900,554
1966	541,022	345,945	39,663	58,059	984,689
1967	584,570	394,501	39,215	61,535	1,079,821
1968	633,392	442,778	38,827	68,357	1,183,354
1969	682,453	488,864	38,614	74,598	1,284,529
1970	734,730	551,357	38,644	77,392	1,402,123
1971	792,318	589,883	39,202	81,931	1,503,334
1972	853,911	640,689	39,975	93,410	1,627,985
1973	928,192	708,322	40,632	101,154	1,778,300
1974	1,009,038	827,018	39,441	109,623	1,985,120
1975	1,083,421	904,695	39,423	112,032	2,139,571
1976	1,177,672	1,002,647	39,175	123,569	2,343,063
1977	1,289,321	1,115,047	39,045	139,402	2,582,815

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1963 through 1978 (New York, N.Y.: annually).

TABLE XXII-17. PAYMENTS TO LIFE INSURANCE BENEFICIARIES IN MICHIGAN AND THE UNITED STATES: 1966-1977

Year	Ordinary Number (000)	Ordinary Amount ($000)	Group Number (000)	Group Amount ($000)	Industrial Number (000)	Industrial Amount ($000)	Total Number (000)	Total Amount ($000)
				Michigan				
1966	31.8	98,400	37.4	130,100	30.4	13,400	99.6	241,900
1967	31.5	103,500	37.5	137,600	31.8	13,600	100.8	254,700
1968	35.8	116,400	39.2	158,500	29.6	14,100	104.6	289,000
1969	37.4	130,100	41.5	182,900	29.5	14,800	108.4	327,800
1970	38.0	130,000	40.0	185,500	28.8	15,000	106.8	330,500
1971	37.5	129,800	42.0	210,900	30.0	15,500	109.5	356,200
1972	40.3	143,800	46.6	224,200	28.9	15,600	115.8	383,600
1973	41.5	154,800	51.2	233,900	28.8	16,100	121.5	404,800
1974	41.3	158,800	52.9	250,200	27.0	15,600	121.2	424,600
1975	42.0	162,100	51.5	254,600	27.1	15,600	120.6	432,300
1976	41.7	165,900	50.1	265,000	26.1	15,500	117.9	446,400
1977	43.8	179,100	49.2	307,100	28.6	17,100	121.6	503,300
				United States				
1966	815	2,750,200	683	2,057,500	1,079	410,500	2,577	5,218,200
1967	832	2,961,500	721	2,287,700	1,060	416,100	2,613	5,665,300
1968	930	3,210,000	746	2,578,100	1,039	421,200	2,715	6,209,300
1969	955	3,424,100	769	2,897,600	1,025	436,400	2,749	6,758,100
1970	960	3,545,600	767	3,026,700	1,014	445,000	2,741	7,017,300
1971	987	3,699,400	761	3,267,400	1,017	456,500	2,765	7,423,300
1972	1,036	4,003,700	810	3,536,700	1,040	466,600	2,886	8,007,000
1973	1,112	4,289,400	884	3,805,900	1,018	476,700	3,014	8,572,000
1974	1,097	4,382,000	938	4,031,200	974	471,900	3,009	8,885,100
1975	1,098	4,473,600	906	4,256,000	922	462,500	2,926	9,192,100
1976	1,110	4,665,400	882	4,452,900	933	475,000	2,925	9,593,300
1977	1,098	4,907,500	860	4,812,900	910	475,300	2,869	10,195,700

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1963 through 1977 (New York, N.Y.: annually).

TABLE XXII-18. ASSETS, LIABILITIES, AND CAPITAL STOCK OF MICHIGAN INSURANCE COMPANIES: 31 DECEMBER 1976 AND 1977

Type of company	1976 Number of companies	1976 (In thousands of dollars) Admitted assets	1976 Liabilities[a]	1976 Capital stock	1977 Number of companies	1977 (In thousands of dollars) Admitted assets	1977 Liabilities[a]	1977 Capital & surplus[b]
Property and liability insurance								
Stock	16	850,782	591,508	33,755	18	989,006	n.a.	314,660
Mutual	29	937,837	696,732	0	29	1,171,889	n.a.	289,204
Reciprocal exchanges	1	367,690	310,384	0	1	457,006	n.a.	86,094
Farm mutuals	9	3,446	441	0	9	3,709	n.a.	579
Life insurance								
Stock	20	818,629	683,908	24,025	21	932,941	n.a	142,138
Mutual	4	263,582	250,076	0	4	302,720	n.a.	14,887
Fraternal benefit societies	3	116,410	97,353	0	3	120,515	n.a.	20,374
Nonprofit medical, hospital and dental organizations, and associations	2	564,695	490,649	0	4	749,494	n.a.	196,256
Cooperative associations[c]	3	2,676	1,678	0	—	—	—	—

SOURCE: Michigan Department of Commerce, Insurance Bureau, Annual Statistical Report.

a. Not including capital stock and surplus.

b. Method of reporting was changed in the 1977 Annual Statistical Report.

c. Dropped as a category for 1977.

n.a.: not available.

TABLE XXII-19. SUMMARY OF MICHIGAN PREMIUMS AND LOSSES OF COMPANIES AND SOCIETIES OPERATING IN MICHIGAN: 1977

(In thousands of dollars)

Type of company	Total direct Michigan premiums[a]	Total direct Michigan losses[b]
Property and liability insurance companies		
Funds and pools, Michigan	69,805	47,680
Stock companies, Michigan	312,637	181,888
Stock companies, foreign	1,558,896	867,120
Mutual companies, Michigan	428,990	246,857
Mutual companies, foreign	456,491	285,253
Alien companies-United States business	12,784	9,201
Reciprocal exchanges, Michigan	296,859	208,910
Reciprocal exchanges, foreign	47,522	30,894
Farm mutuals, Michigan	603	347
TOTALS[c]	3,183,984	1,877,803
Life insurance companies		
Stock companies		
Life insurance operation, Michigan	113,125	46,732
Life insurance operation, foreign	431,881	228,662
Casualty operations, Michigan	67,022	45,820
Casualty operations, foreign	458,253	349,709
Mutual companies		
Life insurance operations, Michigan	42,400	11,419
Life insurance operations, foreign	868,069	594,574
Casualty operations, Michigan	51,493	37,438
Casualty operations, foreign	481,793	404,624
Alien companies-United States business		
Life insurance operations	71,871	43,496
Casualty operations	30,379	25,026
Societies		
Life insurance operations, Michigan	3,315	861
Life insurance operations, foreign	32,525	7,612
Casualty operations, Michigan	38	16
Casualty operations, foreign	2,428	1,254
Michigan-medical, hospital, and dental organizations and associations		
Life insurance operations	39	19
Casualty (excluding Blue Cross)	34,715	25,269
Blue Cross-Blue Shield of Michigan	2,072,627	1,875,478
TOTAL LIFE INSURANCE OPERATIONS	1,563,228	933,378
TOTAL CASUALTY OPERATIONS	3,198,751	2,764,634

SOURCE: Michigan Department of Commerce, Insurance Bureau, Annual Statistical Report 1977 (Lansing: 1978), Table I, II, III, and IV.

a. Casualty premiums are premiums earned.

b. Property, liability, and casualty losses are losses incurred. Life losses are losses paid.

c. Total does not include farm mutuals.

TABLE XXII-20. RESIDENTIAL AND NONRESIDENTIAL MORTGAGES OWNED BY U.S. LIFE INSURANCE COMPANIES IN MICHIGAN AND THE UNITED STATES: 30 DECEMBER 1965-1976

(In thousands of dollars)

Year	Farm	Nonfarm F.H.A.	Nonfarm V.A.	Nonfarm conventional	Total
1965	39,891	474,470	183,324	1,253,548	1,951,233
1966	42,566	463,379	167,526	1,399,205	2,072,676
1967	45,500	439,500	154,100	1,493,200	2,132,300
1968	43,200	436,900	144,000	1,541,700	2,165,800
1969	38,200	427,200	131,500	1,605,200	2,202,100
1970	36,600	407,000	119,700	1,696,800	2,260,100
1971	35,200	369,400	106,700	1,747,200	2,258,500
1972	33,400	331,900	95,600	1,815,500	2,276,400
1973	31,400	298,300	82,900	1,904,000	2,316,600
1974	30,800	227,100	74,600	2,040,700	2,423,200
1975	34,800	254,100	66,500	2,096,900	2,452,300
1976	49,400	228,500	59,500	2,146,800	2,484,200

SOURCE: Americal Council of Life Insurance, Life Insurance Fact Book, 1963 through 1978 (New York: annually), (1976 data).

TABLE XXII-21. SALES OF SERIES E AND H SAVINGS BONDS IN MICHIGAN AND THE UNITED STATES: FISCAL YEARS 1954-1977

(In thousands of dollars)

Fiscal year	Sales		Fiscal year	Sales	
	United States	Michigan		United States	Michigan
1954	4,652,875	278,602	1966	4,650,078	300,249
1955	5,224,513	312,276	1967	4,965,355	297,164
1956	5,259,886	327,443	1968	4,738,866	283,164
1957	4,612,994	278,650	1969	4,549,746	282,256
1958	4,670,138	282,662	1970	4,449,211	240,185
1959	4,505,960	242,108	1971	5,081,896	289,948
1960	4,307,048	250,600	1972	5,939,037	455,433
1961	4,463,728	254,890	1973	6,513,577	452,513
1962	4,421,490	238,795	1974	6,428,766	446,422
1963	4,518,035	242,017	1975	6,826,464	410,311
1964	4,656,422	259,724	1976	7,293,244	432,382
1965	4,534,018	276,808	1977	7,894,697	536,314

SOURCES: U.S. Department of the Treasury, Annual Report, 1953 through 1967 (Washington, D.C.: annually), and Statistical Appendix to Annual Report, 1968 through 1978 (Washington, D.C.: annually).

TABLE XXII-22. NUMBER OF STOCKBROKER AND SECURITIES DEALER FIRMS IN MICHIGAN AND THE UNITED STATES: 30 SEPTEMBER 1940 - 1977

Year	Sole proprietorships	Partnerships	Corporations[a]	Total Michigan	Total U.S.
1940	22	26	49	97	6,545
1945	11	20	28	59	4,099
1950	8	24	30	62	3,959
1955	9	17	26	52	4,260
1960	10	19	33	62	5,239
1961	9	17	36	62	5,446
1962	10	17	34	61	5,764
1963	9	13	37	59	5,423
1964	10	13	35	58	4,820
1965	12	14	38	64	4,494
1966	11	12	43	66	4,313
1967	11	14	44	69	4,128
1968	16	10	46	72	4,355
1969	15	10	49	74	4,755
1970	17	9	55	81	5,187
1971	9	6	56	71	4,901
1972	8	5	54	67	4,968
1973	8	4	54	66	4,373
1974	8	3	52	63	3,982
1975	8	4	44	56	3,546
1976	5	5	46	56	5,380
1977	6	5	49	60	5,725

SOURCE: Securities and Exchange Commission, Annual Report, 1940 through 1976 (Washington, D.C.: annually), Part 9, Table 4 (1977).
a. Includes all forms of organizations other than sole proprietorships and partnerships.

TABLE XXII-23. NUMBER OF SHAREOWNERS OF PUBLIC CORPORATIONS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1956-1975

(In thousands of persons)

Year	Michigan	United States
1956	370	8,604
1959	625	12,391
1962	794	16,867
1965	946	19,963
1970	1,403	30,612
1975	1,517	25,270

SOURCE: New York Stock Exchange, Fact Book, 1978 (New York, N.Y.: 1979), p. 51.

TABLE XXII-24. NUMBER OF LICENSES ISSUED FOR REAL ESTATE BROKERS, OFFICES, AND SALESMEN IN MICHIGAN, BY COUNTY: 23 AUGUST 1978

County	Broker	Associate broker	Branch office	Salesmen	Total
Alcona	16	7	3	107	133
Alger	7	2	1	20	30
Allegan	52	25	10	313	400
Alpena	47	30	4	308	389
Antrim	42	24	17	210	293
Arenac	17	6	9	79	111
Baraga	5	--	1	20	26
Barry	29	14	8	185	236
Bay	105	51	9	698	863
Benzie	21	10	3	70	104
Berrien	187	95	28	850	1,160
Branch	51	25	10	265	351
Calhoun	158	80	10	618	866
Cass	59	11	8	177	255
Charlevoix	36	30	12	207	285
Cheboygan	34	10	7	142	193
Chippewa	34	8	3	126	171
Clare	49	22	8	227	306
Clinton	24	19	4	236	283
Crawford	22	21	4	93	140
Delta	31	16	2	112	161
Dickinson	10	11	2	63	86
Eaton	76	68	6	468	618
Emmet	63	48	8	212	331
Genesee	572	255	29	2,715	3,571
Gladwin	22	11	11	112	156
Gogebic	11	5	1	17	34
Grand Traverse	120	98	8	586	812
Gratiot	35	17	4	157	213
Hillsdale	36	22	7	262	327
Houghton	19	5	1	28	53
Huron	24	10	12	149	195
Ingham	478	323	28	1,947	2,776
Ionia	34	23	3	227	287
Iosco	50	25	6	293	374

TABLE XXII-24. NUMBER OF LICENSES ISSUED FOR REAL ESTATE BROKERS, OFFICES, AND SALESMEN IN MICHIGAN, BY COUNTY: 23 AUGUST 1978 (cont.)

County	Broker	Associate broker	Branch office	Salesmen	Total
Iron	12	2	--	33	47
Isabella	28	29	6	215	278
Jackson	171	86	6	623	886
Kalamazoo	269	115	16	1,059	1,459
Kalkaska	20	14	4	90	128
Kent	489	209	52	2,290	3,040
Keweenaw	--	--	--	1	1
Lake	13	7	5	47	72
Lapeer	64	44	12	578	698
Leelanau	26	18	4	128	176
Lenawee	103	51	12	573	739
Livingston	135	112	22	925	1,194
Luce	8	6	1	32	47
Mackinac	15	4	5	60	84
Macomb	727	409	77	5,106	6,319
Manistee	24	14	4	111	153
Marquette	57	50	3	271	381
Mason	22	27	5	152	206
Mecosta	35	28	18	159	240
Menominee	14	10	3	73	100
Midland	76	40	6	409	531
Missaukee	11	9	4	60	84
Monroe	134	30	11	667	842
Montcalm	45	21	13	263	342
Montmorency	22	14	5	96	137
Muskegon	175	49	9	572	805
Newaygo	25	12	8	164	209
Oakland	2,367	1,513	130	9,523	13,533
Oceana	20	11	7	121	159
Ogemaw	28	7	11	131	177
Ontonagon	3	2	2	10	17
Osceola	24	17	8	80	129
Oscoda	11	3	5	52	71
Otsego	41	33	6	184	264
Ottawa	129	74	11	686	900

TABLE XXII-24. NUMBER OF LICENSES ISSUED FOR REAL ESTATE BROKERS, OFFICES, AND SALESMEN IN MICHIGAN, BY COUNTY: 23 AUGUST 1978 (cont.)

County	Broker	Associate broker	Branch office	Salesmen	Total
Presque Isle	16	6	4	89	115
Roscommon	54	25	10	229	318
Saginaw	291	137	10	1,341	1,779
Sanilac	44	20	15	286	365
Schoolcraft	9	4	1	22	36
Shiawassee	50	32	5	409	496
St. Clair	160	94	18	843	1,115
St. Joseph	53	30	11	327	421
Tuscola	44	25	8	356	433
Van Buren	47	35	12	266	360
Washtenaw	311	203	15	1,341	1,870
Wayne	2,170	783	123	10,747	13,823
Wexford	39	17	7	150	213
Out of State	170	128	1	1,070	1,369
Foreign	2	1	--	2	5
TOTAL	11,379	6,037	1,018	55,321	73,755

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXII-25. NUMBER OF LICENSES ISSUED FOR PUBLIC ACCOUNTANCY IN MICHIGAN, BY COUNTY: 18 AUGUST 1978 (cont.)

County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices	County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices
Manistee	2	--	--	1	Presque Isle	--	--	--	--
Marquette	42	8	3	4	Roscommon	--	--	--	1
Mason	2	--	--	2	Saginaw	92	23	8	8
Mecosta	7	3	1	1	Sanilac	5	--	1	2
Menominee	3	--	1	1	Schoolcraft	1	--	--	1
Midland	18	8	2	2	Shiawassee	15	4	1	2
Missaukee	1	1	--	--	St. Clair	35	13	3	3
Monroe	19	4	1	1	St. Joseph	14	2	1	--
Montcalm	3	2	--	2	Tuscola	10	--	--	3
Montmorency	1	--	--	1	Van Buren	8	4	--	--
Muskegon	49	17	4	1	Washtenaw	125	36	9	5
Newaygo	3	4	--	--	Wayne	972	590	69	6
Oakland	1,441	319	195	10	Wexford	13	2	2	--
Oceana	4	1	1	--	Outstate	262	616	--	--
Ogemaw	4	--	1	1	Foreign	5	23	--	--
Ontonagon	--	1	--	--					
Osceola	2	2	1	--					
Oscoda	--	--	--	1					
Otsego	8	--	--	1	TOTAL	4,761	2,146	466	131
Ottawa	67	26	3	2					

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXII-26. AVERAGE STRAIGHT-TIME EARNINGS AND HOURS WORKED OF FULL-TIME WORKERS IN BANKING IN DETROIT, 1973 AND 1976

Selected clerical occupation	1973		1976	
	Avg. weekly hours	Avg. weekly earnings	Avg. weekly hours	Avg. weekly earnings
Clerks, file			39.0	$119.50
Class B	39.0	$104.00	37.5	123.00
Class C	40.0	97.00	39.0	118.50
Keypunch operators			39.5	147.50
Class A	40.0	124.00	39.0	161.00
Class B	40.0	118.00	39.5	146.00
Proof-machine operators	40.0	110.00	39.0	137.50
Safe-deposit clerks	40.0	125.50	39.5	154.00
Secretaries	40.0	157.50	39.5	198.00
Class A	40.0	189.50	39.5	286.00
Class B	39.5	178.00	39.5	227.50
Class C	40.0	159.00	39.5	198.50
Class D	40.0	146.50	39.5	185.00
Stenographers	-	--	40.0	164.50
General	40.0	124.50	40.0	159.50
Senior	40.0	150.00	-	--
Switchboard operators	-	--	39.0	140.50
Class A	39.5	133.50	-	--
Class B	40.0	111.00	38.5	136.00
Typist	-	--	39.5	140.00
Class A	39.5	133.50	38.5	140.00
Class B	40.0	116.00	40.0	140.00
Computer operators			39.5	186.50
Class A	40.0	184.00	39.5	228.00
Class B	40.0	168.50	39.5	195.00
Class C	40.0	131.00	39.0	163.00
Computer programmer, business	-	--	39.0	273.50
Class A	40.0	267.00	39.5	312.50
Class B	40.0	219.00	39.5	260.00
Class C	40.0	180.50	38.0	188.50
Computer systems analysts, business	-	--	40.0	371.50
Class A	40.0	311.50	40.0	396.00
Class B	40.0	264.50	40.0	339.00
Selected teller and officers				
Tellers	-	--	39.0	144.00
All-round	40.0	118.00	38.0	127.00
Note	40.0	125.50	38.5	159.00
Commercial-savings	40.0	124.00	39.5	152.50
Commercial	40.0	122.50	-	--
Savings	40.0	110.50	-	--
Vault	-	--	38.5	160.50
Commercial loan officer			38.5	267.00

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Industry Wage Surveys: Banking and Life Insurance, December 1976, Bulletin 1988 (Washington, D.C.: 1978) (for 1976), and Bulletin 1862 (for 1973).

NOTE: The Detroit Metropolitan area consists of Lapeer, Livingston, Macomb, Oakland, St. Clair, and Wayne counties. Earnings information excludes premium paid for overtime and for work on weekends, holidays, and late shifts.

TABLE XXII-25. NUMBER OF LICENSES ISSUED FOR PUBLIC ACCOUNTANCY IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices	County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices
Alcona	1	--	--	--	Gladwin	3	--	--	--
Alger	--	--	--	1	Gogebic	8	5	2	--
Allegan	6	3	--	2	Grand Traverse	49	14	6	6
Alpena	13	2	3	--	Gratiot	12	4	1	2
Antrim	2	1	--	--	Hillsdale	9	2	1	1
Arenac	--	--	--	1	Houghton	9	4	2	--
Baraga	--	--	--	--	Huron	19	1	2	1
Barry	4	2	--	--	Ingham	170	52	14	6
Bay	52	4	6	1	Ionia	6	2	1	1
Benzie	1	1	--	1	Iosco	8	--	1	1
Berrien	70	15	9	1	Iron	1	--	--	--
Branch	12	1	--	1	Isabella	11	3	1	1
Calhoun	39	10	4	4	Jackson	73	10	9	2
Cass	2	--	--	1	Kalamazoo	120	45	11	5
Charlevoix	2	2	--	--	Kalkaska	1	--	--	1
Cheboygan	5	--	--	1	Kent	327	120	19	9
Chippewa	7	1	1	--	Keweenaw	--	--	--	--
Clare	3	--	--	--	Lake	1	--	--	--
Clinton	11	5	--	1	Lapeer	11	8	2	1
Crawford	4	--	1	--	Leelanau	3	2	--	--
Delta	13	1	2	1	Lenawee	14	7	4	--
Dickinson	12	2	2	--	Livingston	19	9	1	5
Eaton	15	6	--	--	Luce	1	--	--	1
Emmet	16	5	2	--	Mackinac	1	1	--	--
Genesee	92	17	21	5	Macomb	270	70	31	5

XXIII. SELECTED SERVICES

The first postwar business census covered the year 1948. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at 5-year intervals covering years ending in "2" and "7." These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in furnishing lodging, or lodging and meals, and camping space or camping facilities, on a fee basis; providing services generally involved in the care of the person or his apparel, such as laundries, dry cleaning plants, portrait photographic studios, and beauty and barber shops; rendering services to business establishments on a fee or contract basis; furnishing automotive repair, leasing, and parking and other repair services to the general public; producing, distributing, or exhibiting motion pictures in commercially operated theatres; providing other amusement or entertainment on payment of a fee or admission charge; making dentures and artificial teeth to order for the dental profession; offering legal advice or legal services (providing that the head of the organization or office is a member of the bar); or rendering engineering, architectural, and surveying services were classified in the Census of Selected Service Industries, 1972. The tabulations exclude such establishments that are part of a military post, school, university, and so forth. Many service producing establishments such as hospitals, physicians offices, and educational institutions, are not covered in the Census of Selected Service Industries.

Beginning in 1954, the Census of Selected Service Industries has excluded firms with no paid employees during the census year unless they reported sales of $1,000 or more. Firms with no paid employees were not actually convassed, their sales figures and kind-of-business classification being obtained from 1972 income tax returns.

Several changes were made in the kind-of-business definitions between 1967 and 1972 with the result that comparability between the two censuses is limited. The kinds of business involving the most significant changes are those in the new computer and data processing services category. In Table XXIII-1 the 1972 Census of Selected Services Industries aggregates for the state are reported on the basis of the 1967 classification as well as that now current. A complete listing of the kinds of business included during 1972 is presented in Table XXIII-2.

It is customary in an economic census to classify each establishment separately irrespective of whether it is part of a larger organization.

Receipts reported in the Census of Selected Service Industries do not include receipts incidental to other kinds of business such as wholesaling or services. They do include total receipts, including accruals, of selected service establishments even though some of these receipts were from selling merchandise, carrying charges, delivering merchandise, and so forth. Trade-in allowances are not deducted but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Receipts include receipts so-defined of all establishments with a sales volume of $1,000 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. The census also includes establishments in operation less than the full year, with reported sales of less than $1,000, if they could have expected reaching the $1,000 cutoff on the basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employees income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

The Michigan Department of Licensing and Regulation provides statistics on the number of establishments licensed to do business as barber shops, beauty shops, and funeral parlors, and on the number of people licensed to practice cosmetology, barbering, and mortuary science.

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TABLE XXIII-1. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN: 1947, 1954, 1958, 1963, 1967, AND 1972

Year	Establishments with payroll				All establishments[a]	
	Number	Receipts ($1,000,000)	Annual payroll ($1,000,000)	Paid employees[b]	Number	Receipts ($1,000,000)
1947[c]	n.a.	n.a.	130	48,315	21,376	367
1954	15,127	935	267	76,449	29,699	1,016
1958	17,653	1,256	338	93,279	38,521	1,380
1963	20,188	1,642	424	114,614	44,412	1,793
1967	19,654	2,214	647	139,436	43,214	2,397
1972[d]	20,846	3,223	939	162,205	48,727	3,504
1972[e]	24,718	3,919	1,222	186,018	56,080	4,257

SOURCES: Bureau of the Census, U.S. Census of Selected Service Industries, 1972, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Tables 1 and 6; and Bureau of the Census, U.S. Census of Business, 1967, Selected Services, Michigan (Washington, D.C.: 1969), BC67-SA24, Table 2, and similar census documents for 1963 (BC63-SA24, Table 2), 1958 (BC58-SA22, Table 101), 1954 (vol. 6, part 1, Michigan section, Table 101), and 1948 (vol. 7, Michigan section, Table 1).

a. Excludes establishments with no paid employment and with annual receipts less than $1,000.

b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.

c. Unrevised statistics. Based upon reports from establishments with receipts of $500 or more.

d. Based on 1967 Standard Industrial Classification. Excludes dental laboratories, legal services, and architectural, engineering, and land surveying services which are included in the Census of Selected Service Industries, 1972.

e. Based on 1972 Standard Industrial Classification. Includes dental laboratories, legal services, and architectural, engineering, and land surveying services which were excluded in the Census of Business, 1967, Selected Services.

n.a.: not available.

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid		
	Number	Receipts ($1,000)	Entire year	First quarter	employees 12 March[a]	Number	Receipts ($1,000)
Hotels, motels, trailer parks, camps							
Hotels, motor hotels, and motels	1,464	247,240	72,830	16,904	18,462	2,429	258,231
Hotels	368	92,759	32,062	7,617	7,293	484	94,265
Hotels, 25 or more guests rooms	232	86,176	30,482	7,265	6,792	(b)	(b)
Hotels, less than 25 guests rooms	136	6,583	1,580	352	501	(b)	(b)
Motels, tourist courts,, and motor hotels	1,096	154,481	40,768	9,287	11,170	1,945	163,966
Motels, tourist courts	1,037	126,015	32,500	7,307	8,968	(b)	(b)
Motor hotels	59	28,466	8,268	1,980	2,202	(b)	(b)
Sporting and recreational camps	126	7,187	2,327	541	522	500	10,143
Trailer parks and campsites for transients	91	4,232	1,154	166	129	447	9,678
TOTAL	1,681	258,659	76,311	17,611	19,114	3,376	278,052
Personal services							
Laundry, cleaning, other garment services	2,506	232,504	90,537	22,028	19,185	3,380	244,520
Coin-operated laundries and dry cleaning	790	35,003	7,567	1,961	2,782	1,119	40,114
Coin-operated laundries and dry cleaning stores	776	31,699	6,816	1,784	2,663	(b)	(b)
Coin-operated laundry machine routes	14	3,304	751	177	119	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll		Payroll ($1,000)		Paid employees 12 March[a]	All establishments	
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Personal services (cont.)							
Other laundry, cleaning, and garment services	1,716	197,406	82,970	20,067	16,403	2,261	204,406
Power laundries, family and commercial	105	21,391	10,590	2,561	2,220	(b)	(b)
Dry-cleaning plants except rug cleaning	1,151	75,733	30,106	7,426	7,607	(b)	(b)
Garment pressing and agents for laundries and dry cleaners	137	6,271	1,855	442	483	(b)	(b)
Industrial launderers	62	42,773	17,969	4,435	2,662	(b)	(b)
Linen supply	52	40,228	18,337	4,288	2,643	(b)	(b)
Diaper service	11	2,204	1,044	264	134	(b)	(b)
Carpet and upholstery cleaning	133	5,751	1,916	390	376	(b)	(b)
Other laundry and garment services	65	3,150	1,153	261	278	(b)	(b)
Photographic studios, portrait	246	25,308	7,360	1,659	1,460	1,166	33,584
Beauty and barber shops	3448	119,624	57,218	13,645	12,709	10,664	169,897
Beauty shops	3,006	107,569	51,832	12,290	11,775	6,784	128,719
Barber shops	442	12,055	5,386	1,355	934	3,880	41,178
Shoe repair, shoeshine, hat-cleaning shope	107	3,668	1,074	285	246	365	6,144
Funeral service, crematories	608	93,828	20,494	4,899	2,877	777	98,472
Miscellaneous personal	460	35,359	11,041	3,109	3,789	1,969	45,368
Reducing salons and health clubs, ex. resorts	54	8,711	2,069	564	389	(b)	(b)
Other personal services, N.E.C.	406	26,648	8,972	2,545	3,400	(b)	(b)
TOTAL	7,375	510,291	187,724	45,625	40,266	18,321	597,985

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Business services							
Advertising	334	609,666	55,056	12,907	4,813	987	619,621
Advertising agencies	223	585,786	46,558	10,905	3,755	(b)	(b)
Outdoor ad. services	43	12,291	4,398	1,001	506	(b)	(b)
Radio, television advertising representatives	26	4,710	1,821	422	135	(b)	(b)
Publishers' advertising representatives	18	2,900	1,040	256	84	(b)	(b)
Miscellaneous advertising	24	3,979	1,239	323	333	(b)	(b)
Services to dwellings, other buildings	865	73,434	41,517	9,976	10,804	2,119	82,959
Window cleaning	76	4,905	2,498	531	503	(b)	(b)
Disinfecting, exterminating services	61	7,505	3,798	893	549	(b)	(b)
Other cleaning, maintenance services	728	61,024	35,221	8,552	9,752	(b)	(b)
Computer, data processing	215	79,827	32,385	7,126	3,457	274	80,415
Computer programing, software services	48	7,748	4,097	910	331	(b)	(b)
Data processing, except facilities management	139	55,772	22,779	5,002	2,634	(b)	(b)
Computer, facilities mng.	7	(d)	(d)	(d)	(d)	(b)	(b)
Computer related, N.E.C.	21	(d)	(d)	(d)	(d)	(b)	(b)
Management, consulting, public relations	536	84,927	35,164	8,547	3,451	2,029	101,536
Management and consulting	483	78,124	32,512	7,965	3,230	(b)	(b)
Public relations	53	6,803	2,652	582	221	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First, quarter		Number	Receipts ($1,000)
Business services (cont.)							
Equipment rental, leasing	281	109,602	24,251	5,300	1,958	664	115,451
Equipment rental	167	25,906	6,647	1,381	685	(b)	(b)
Equipment leasing, except finance leasing	45	9,581	3,031	780	292	(b)	(b)
Leasing, rental heavy construction equipment with operators	34	14,332	3,325	514	182	(b)	(b)
Rental, heavy construction with operators	35	59,783	11,248	2,625	799	(b)	(b)
Other business services	2,188	431,524	198,683	46,425	33,178	4,457	458,713
Adjustment, collection agencies	173	16,191	7,058	1,713	1,063	(b)	(b)
Mercantile reporting ag.	8	(d)	(d)	(d)	(d)	(b)	(b)
Consumer credit agencies	42	8,907	4,208	976	814	(b)	(b)
Direct mail advertising	81	18,534	6,496	1,533	1,507	(b)	(b)
Blueprinting and photocopying service	56	9,657	3,263	731	435	(b)	(b)
Stenographic, court reporting, typing	73	5,695	2,829	666	426	(b)	(b)
Duplicating, except printing	23	1,639	567	129	91	(b)	(b)
Commercial photography, art, related design	224	44,467	19,355	4,459	1,696	(b)	(b)
Commercial photography	87	11,596	4,197	1,017	429	(b)	(b)
Commercial art	64	16,398	8,204	1,973	671	(b)	(b)
Other	73	16,473	6,954	1,469	596	(b)	(b)
News syndicates	5	(d)	(d)	(d)	(d)	(b)	(b)
Private employment ag.	176	21,159	9,339	2,152	1,433	(b)	(b)
Temp. office help, supply services	73	19,274	14,219	3,109	4,203	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Business services (cont.)							
Temp. help supply, except office workers	40	12,376	9,468	1,866	1,813	(b)	(b)
Personnel supply, N.E.C.	23	5,100	2,582	670	485	(b)	(b)
Commercial research, development lab.	62	21,054	11,459	2,930	986	(b)	(b)
Commercial testing lab.	48	6,092	2,994	647	279	(b)	(b)
Detective agencies and guard services	183	44,090	33,782	8,046	8,434	(b)	(b)
Armored car services	42	7,606	4,275	986	596	(b)	(b)
Burglar and fire alarm	26	9,779	4,222	1,030	513	(b)	(b)
Photofinishing lab.	63	30,773	8,620	2,114	1,181	(b)	(b)
Trading stamp (sales office)	4	(d)	(d)	(d)	(d)	(b)	(b)
Sign painting shops	59	3,870	1,268	300	159	(b)	(b)
Interior designing	43	10,854	2,214	563	270	(b)	(b)
Telephone answering services	67	5,687	2,726	669	659	(b)	(b)
Water softening services	82	13,438	3,992	945	536	(b)	(b)
Packaging and labeling	35	17,351	4,742	1,133	682	(b)	(b)
Miscellaneous business, N.E.C.	477	75,557	33,853	8,000	4,434		
TOTAL	4,419	1,388,980	387,056	90,281	57,661	10,530	1,458,695
Automotive repair, services, and garages							
Automotive repair shops	2,251	246,324	70,252	16,754	8,991	3,926	272,586
General automotive repair	815	82,915	21,250	5,127	2,936	1,780	97,548
General automotive, except diesel	775	76,686	19,389	4,656	2,663	(b)	(b)
Diesel repair shop	40	6,229	1,861	471	273	(b)	(b)
Top and body repair shops	739	78,401	24,563	5,974	3,190	1,190	85,922

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)				
	Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 1st March[a]	Number	Receipts ($1,000)
Automotive repair, services, garages (cont.)							
Other automotive repair shops	697	85,008	24,439	5,653	2,865	956	89,116
Tire retreading and repair	55	9,998	2,528	574	307	(b)	(b)
Paint shops	109	11,326	3,514	905	464	(b)	(b)
Auto electrical and fuel system services	63	5,778	1,675	392	223	(b)	(b)
Radiator repair	66	5,933	1,688	400	247	(b)	(b)
Glass replacement and repair	115	18,778	5,182	1,191	574	(b)	(b)
Brake, front end, and wheel alignment	81	7,460	2,340	533	287	(b)	(b)
Exhaust system (muffler shops)	68	11,670	2,879	576	249	(b)	(b)
Transmission repair	109	10,544	3,361	819	390	(b)	(b)
Other automotive repair, N.E.C.	31	3,521	1,272	263	133	(b)	(b)
Automotive rental, leasing, without drivers	270	121,147	15,296	3,828	1,822	369	124,019
Passenger car rental without drivers	68	21,933	3,939	980	579	(b)	(b)
Passenger car leasing, except finance leasing	57	25,112	2,236	535	216	(b)	(b)
Truck rental, without drivers	37	23,057	2,876	730	338	(b)	(b)
Truck leasing, except finance leasing	76	49,091	5,863	1,496	620	(b)	(b)
Utility and recreational vehicle rental	32	1,954	372	87	69	(b)	(b)
Automobile parking	324	21,707	4,577	1,175	1,085	394	22,483
Parking lots	304	13,292	3,225	823	835	(b)	(b)
Parking structures	20	8,415	1,352	352	250	(b)	(b)
Automotive services, except repair	542	47,903	13,855	3,514	4,128	1,056	54,866

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)				
	Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Automotive repair, services, garages (cont.)							
Car wash	429	38,510	10,109	2,636	3,604	(b)	(b)
Other automotive serv.	113	9,393	3,746	878	524	(b)	(b)
TOTAL	3,387	437,081	103,970	25,271	16,026	5,745	473,954
Miscellaneous repair services							
Electrical and electronic repair shops	540	59,248	20,543	4,773	2,420	1,866	73,142
Radio and TV repair	318	31,493	9,776	2,333	1,259	1,255	41,071
Other electrical and electronic repair	222	27,755	10,767	2,440	1,161	611	32,071
Refrigeration and air-conditioning repair	88	7,839	2,592	537	250	(b)	(b)
Electrical and electronic, N.E.C.	134	19,916	8,175	1,903	911	(b)	(b)
Reupholstery and furniture	190	11,819	3,759	899	659	781	17,379
Other repair shops and related services	877	126,164	42,098	9,707	4,587	2,296	140,096
Watch, clock, jewelry	54	4,221	1,082	266	158	(b)	(b)
Miscellaneous repair and related services	823	121,943	41,016	9,441	4,429	(b)	(b)
Welding repair	159	17,059	5,852	1,294	685	(b)	(b)
Armature rewinding shope	90	24,207	8,143	1,898	810	(b)	(b)
Farm machinery/equipment	16	1,739	574	152	72	(b)	(b)
Lawnmower, saw, knife, tool sharpening repair	66	6,244	2,089	489	242	(b)	(b)
Sewer, septic tank cleaning	68	6,728	2,016	437	210	(b)	(b)
Other repair and related services, N.E.C.	424	65,966	22,342	5,171	2,410	(b)	(b)
TOTAL	1,607	197,231	66,400	15,379	7,666	4,943	230,617

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Amusement and recreation services, including motion pictures							
Motion picture production distribution, services	85	49,829	11,587	2,540	939	151	50,933
Motion picture production, except TV	26	12,878	4,523	902	280	(b)	(b)
Motion picture, tape production for TV	12	8,175	2,864	600	253	(b)	(b)
Services allied to motion picture production	15	6,441	2,230	531	172	(b)	(b)
Motion picture film ex.	20	20,797	1,528	395	177	(b)	(b)
Film or tape distribution for TV	1	(d)	(d)	(d)	(d)	(b)	(b)
Services allied to motion picture distribution	11	(d)	(d)	(d)	(d)	(b)	(b)
Motion picture theaters	362	64,964	13,465	3,034	4,481	395	65,578
Motion picture theaters, except drive-in	256	48,167	10,387	2,441	3,572	(b)	(b)
Drive-in motion picture	106	16,797	3,078	593	909	(b)	(b)
Producers, orchestras, entertainers	234	22,543	7,433	1,739	990	1,734	34,692
Dance bands, orchestras, except symphony	128	2,125	1,098	272	356	(b)	(b)
Symphony orchestras, other classical music, dance groups	13	(d)	(d)	(d)	(d)	(b)	(b)
Other entertainment presentations, incl. variety	30	3,560	994	223	101	(b)	(b)
Producers of legitimate theater	26	9,490	2,227	541	265	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Amusement and recreation services (cont.)							
Producers of radio and TV shows, except tape	2	(d)	(d)	(d)	(d)	(b)	(b)
Theatrical services	35	5,752	1,200	211	111	(b)	(b)
Artists' and entertainers' managers or agents, concert bureaus, booking agents	15	3,226	672	147	66	(b)	(b)
Other theatrical services	20	2,526	528	64	45	(b)	(b)
Bowling alleys, billiards, pool	477	93,866	25,532	6,615	6,888	1,110	101,124
Billiard and pool establishments	70	2,999	801	203	215	316	5,725
Bowling alleys	407	90,867	24,731	6,412	6,673	794	95,399
Other amusement and recreation services	1,301	220,701	70,033	13,553	9,080	2,509	233,696
Dance halls, studios, and schools	76	2,306	779	217	316	(b)	(b)
Public dance halls or ballrooms	6	(d)	(d)	(d)	(d)	(b)	(b)
Dance schools, inc. childrens and professionals'	70	(d)	(d)	(d)	(d)	(b)	(b)
Commercial sports	127	77,561	19,903	4,991	1,259	(b)	(b)
Professional sports clubs, mgrs., promoters	18	17,389	9,693	2,173	376	(b)	(b)
Baseball clubs	2	(d)	(d)	(d)	(d)	(b)	(b)
Football clubs	1	(d)	(d)	(d)	(d)	(b)	(b)
Other professional sports	11	7,360	3,392	1,387	129	(b)	(b)
Managers and promoters	4	813	386	107	108	(b)	(b)
Racing, including track op.	109	60,172	10,210	2,818	883	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Amusement and recreation services (cont.)							
Racetrack operation	47	56,447	9,036	2,553	679	(b)	(b)
Auto racetrack operation	36	4,097	687	75	219	(b)	(b)
Horse racetrack operation	11	52,380	8,349	2,478	460	(b)	(b)
Dog racetrack operation	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Racing stables, racing, N.E.C.	62	3,695	1,174	265	204	(b)	(b)
Public golf course, except municipal	194	19,349	5,402	599	483	(b)	(b)
Membership sports and recreation clubs	367	73,781	31,140	5,045	4,719	(b)	(b)
Coin-operated amusement device	61	6,970	1,576	383	235	(b)	(b)
Amusement parks	18	3,039	1,024	93	72	(b)	(b)
Concession operators of amusement devices, rides	36	7,197	1,765	319	187	(b)	(b)
Carnivals, circuses	9	2,008	329	70	6	(b)	(b)
Fairs	27	2,443	577	49	50	(b)	(b)
Other commercial rec. and amusements	386	26,047	7,538	1,787	1,753	(b)	(b)
TOTAL	2,459	451,903	128,050	27,481	22,378	5,899	486,023
Dental laboratories							
TOTAL	181	21,047	8,773	1,971	1,113	336	23,572
Legal services							
TOTAL	2,650	369,949	103,516	22,800	9,342	4,723	409,845
Architectural, engineering, and land surveying services							
Architectural services	310	72,025	36,871	8,995	2,764	(b)	(b)

TABLE XXIII-2. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 (cont.)

Kind of business	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid		
	Number	Receipts ($1,000)	Entire year	First quarter	employees 12 March[a]	Number	Receipts ($1,000)
Architectural services (cont.)							
Engineering services	513	194,358	113,480	25,646	8,590	(b)	(b)
Land-surveying services	136	17,443	9,752	2,152	1,098	(b)	(b)
TOTAL	959	283,826	160,103	36,793	12,452	2,207	298,315
TOTAL SELECTED SERVICES	24,718	3,918,967	1,221,903	283,212	186,018	56,080	4,257,058

SOURCE: Bureau of the Census, U.S. Census of Selected Service Industries, 1972, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 1.

a. Week including 12 March.

b. Data not provided because establishments with no payroll are classified only at the next broader kind-of-business level.

d. Data withheld to avoid disclosing figures for individual companies.

N.E.C.: not elsewhere classified.

TABLE XXIII-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972

County	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Alcona	16	869	344	70	86	70	1,457
Alger	29	1,213	160	37	47	84	1,594
Allegan	151	11,621	3,198	642	566	427	14,382
Alpena	102	5,771	1,819	380	397	229	7,014
Antrim	39	4,547	1,440	375	384	122	5,302
Arenac	34	1,790	356	82	69	79	2,185
Baraga	13	658	156	38	39	48	989
Barry	74	3,457	821	196	318	224	4,998
Bay	269	24,427	7,348	1,809	1,532	689	28,381
Benzie	45	1,771	428	66	83	94	2,258
Berrien	487	52,351	15,380	3,473	3,250	1,198	59,413
Branch	96	7,302	1,548	352	365	242	8,847
Calhoun	393	38,972	13,470	3,167	2,631	868	44,114
Cass	86	3,587	864	162	190	246	5,068
Charlevoix	77	7,286	2,016	586	448	164	8,147
Cheboygan	115	4,794	1,379	218	227	232	5,749
Chippewa	110	6,229	1,630	345	371	278	7,408
Clare	50	3,949	931	231	168	141	4,868
Clinton	87	5,092	1,248	282	277	268	6,864
Crawford	51	3,176	993	204	222	84	3,604
Delta	118	8,092	2,013	413	510	261	9,166
Dickinson	86	5,748	1,576	361	451	173	6,483
Eaton	144	7,997	2,138	509	430	424	10,826
Emmet	129	13,179	3,563	891	860	251	14,412
Genesee	1,126	127,132	42,968	9,920	7,446	2,328	139,586

TABLE XXIII-4. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1976 AND 1977

County	Labor and proprietors' earnings in services, 1976: As a percentage of total labor and proprietors' earnings	1976: Total ($000)	1977: As a percentage of total labor and proprietors' earnings	1977: Total ($000)
Lake	32.44	3,715	31.07	3,891
Emmet	31.42	27,343	29.50	29,082
Leelanau	22.80	5,111	23.40	7,026
Mackinac	22.86	7,499	22.63	8,157
Oakland	20.51	1,119,010	20.29	1,327,723
Crawford	19.78	5,073	19.93	5,689
Grand Traverse	18.34	48,304	19.31	52,831
Gogebic	15.70	7,844	16.68	9,005
Wexford	17.14	14,617	16.54	16,908
Benzie	15.94	4,321	16.51	5,215
Kent	15.74	369,639	15.52	415,898
Kalamazoo	15.05	177,006	15.20	201,421
Jackson	(a)	(a)	15.00[b]	119,600[b]
Gladwin	13.95	4,000	14.76	4,820
Clare	14.22	5,903	14.63	6,910
Otsego	14.26	7,889	14.49	9,292
Bay	13.90	65,579	13.95	75,061
Cheboygan	15.69	8,689	13.90	8,641
Houghton	(a)	(a)	13.88	14,916
Wayne	13.95	2,378,618	13.88	2,642,058
Gratiot	13.75	22,312	13.79	24,280
Isabella	13.33	21,137	13.32	23,415
St. Clair	13.25	57,408	13.10	64,733
Charlevoix	13.32	8,480	12.93	9,570
Ogemaw	12.12	4,350	12.85	5,085
Delta	12.31	18,053	12.84	19,833
Livingston	12.86	21,915	12.72	25,242
Ingham	12.77	251,554	12.71	283,279
Washtenaw	13.00	229,756	12.59	258,484
Newaygo	12.73	9,653	12.46	10,199
Huron	12.07	14,903	12.41	16,933
Shiawassee	12.57	23,199	12.32	24,888
Muskegon	12.25	87,599	12.31	97,245
Marquette	11.72	37,985	12.06	41,660
Presque Isle	(a)	(a)	12.00[b]	4,700[b]

TABLE XXIII-4. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in services			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Berrien	12.01	95,228	11.82	106,836
Calhoun	11.51	93,115	11.78	103,676
Montcalm	12.21	18,078	11.72	19,832
Monroe	12.08	43,933	11.71	49,969
Eaton	10.77	15,528	11.26	18,605
Mason	11.64	9,796	11.23	10,540
Lenawee	11.45	40,976	11.14	44,944
Antrim	12.20	4,538	11.11	4,824
Saginaw	11.05	147,773	11.00	168,588
Alpena	10.52	13,541	10.74	15,517
Oceana	11.71	4,474	10.69	4,872
Ottawa	10.91	60,755	10.57	69,808
Macomb	10.21	332,004	10.40	402,481
Alger	10.96	2,612	10.36	2,688
Sanilac	9.86	11,411	10.19	13,319
Van Buren	9.51	15,372	10.18	18,312
Roscommon	10.70	3,200	10.06	3,490
Keweenaw	8.69	375	10.05	482
Barry	9.06	9,555	9.94	10,931
Arenac	10.78	3,452	9.89	3,685
Allegan	10.28	18,814	9.88	20,866
Mecosta	9.60	7,775	9.80	8,753
Midland	9.93	46,647	9.66	53,039
Clinton	9.95	8,770	9.59	9,784
Cass	9.27	11,405	9.46	13,167
Manistee	8.62	6,357	9.30	7,943
Alcona	9.94	1,359	9.16	1,455
Tuscola	8.65	13,243	8.87	15,123
Genesee	9.31	273,206	8.85	308,702
Chippewa	7.61	9,526	8.82	10,679
Lapeer	8.40	14,155	8.54	16,111
Missaukee	8.27	1,369	8.50	1,565
Hillsdale	8.32	11,013	8.16	12,462
Oscoda	9.07	991	8.09	1,001
Baraga	8.15	1,923	8.01	2,064

TABLE XXIII-4. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1976 AND 1977 (cont.)

County	Labor and proprietors' earnings in services			
	1976		1977	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Dickinson	(a)	(a)	8.0[b]	10,000[b]
Iron	(a)	(a)	8.0[b]	3,200[b]
Luce	(a)	(a)	8.0[b]	2,600[b]
Ionia	8.05	11,013	7.80	12,287
Schoolcraft	7.52	1,973	7.66	2,214
Osceola	7.45	3,571	7.37	4,034
Iosco	6.99	7,246	7.35	7,886
Branch	(a)	(a)	7.0[b]	12,900[b]
Menominee	6.45	4,718	6.46	5,222
St. Joseph	6.32	13,682	6.36	15,425
Montmorency	5.06	741	4.96	860
Kalkaska	4.64	1,402	4.37	1,591
Ontonagon	2.93	1,445	3.24	1,596
Michigan	13.61	6,613,108	13.53	7,509,608
United States	16.52	173,164,000	16.63	193,746,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Table VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-13.

a. Withheld to avoid the possibility of disclosing payroll information for a single company.

b. Estimated by the Division of Research, Graduate School of Business Administration, Michigan State University.

TABLE XXIII-5. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN SERVICES: 1976-1977

County	Percentage change 1972-1977	Percentage change 1976-1977	County	Percentage change 1972-1977	Percentage change 1976-1977
Luce	100[a]	40[a]	St. Clair	57	13
Leelanau	78	37	St. Joseph	42	13
Keweenaw	88	29	Washtenaw	107	13
Manistee	75	26	Ionia	46	12
Benzie	65	21	Berrien	58	12
Gladwin	59	21	Branch	80[a]	12[a]
Macomb	92	21	Chippewa	72	12
Presque Isle	200[a]	21[a]	Clinton	51	12
Eaton	68	20	Crawford	83	12
Oakland	100	19	Schoolcraft	31	12
Van Buren	30	19	Allegan	53	11
Otsego	76	18	Calhoun	49	11
Clare	44	17	Isabella	71	11
Ogemaw	79	17	Menominee	10	11
Sanilac	51	17	Muskegon	50	11
Montmorency	47	16	Wayne	48	11
Wexford	102	16	Delta	66	10
Alpena	64	15	Lenawee	44	10
Cass	84	15	Marquette	80	10
Dickinson	100[a]	15[a]	Montcalm	52	10
Gogebic	56	15	Ontonagon	47	10
Livingston	89	15	Grand Traverse	77	9
Ottawa	58	15	Gratiot	62	9
Barry	49	14	Iosco	57	9
Bay	59	14	Mackinac	69	9
Huron	66	14	Oceana	50	9
Iron	90[a]	14[a]	Roscommon	36	9
Kalamazoo	85	14	Mason	41	8
Lapeer	49	14	Alcona	44	7
Midland	98	14	Arenac	53	7
Missaukee	34	14	Baraga	6	7
Monroe	75	14	Shiawassee	52	7
Saginaw	65	14	Antrim	50	6
Tuscola	53	14	Emmet	77	6
Charlevoix	45	13	Newaygo	65	6
Genesee	61	13	Lake	5	5
Hillsdale	62	13	Alger	64	3
Ingham	63	13	Houghton	60	3[a]
Jackson	70[a]	13[a]	Oscoda	29	1
Kalkaska	144	13	Cheboygan	58	- 1
Kent	64	13			
Mecosta	74	13	Michigan	65	14
Osceola	68	13	United States	68	12

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Estimated by the Division of Research, Graduate School of Business Administration, Michigan State University.

TABLE XXIII-6. NUMBER OF LICENSES ISSUED FOR COSMETOLOGISTS, MANICURISTS, ELECTROLOGISTS, AND COSMETOLOGY SALONS IN MICHIGAN, BY COUNTY: 24 AUGUST 1978

County	Cosmetologists	Manicurists	Electrologists	Salons
Alcona	57	1	--	15
Alger	37	--	--	11
Allegan	412	--	1	111
Alpena	202	--	2	53
Antrim	98	--	--	30
Arenac	81	--	--	23
Baraga	40	--	--	13
Barry	210	--	--	71
Bay	785	1	4	171
Benzie	58	--	1	16
Berrien	994	1	5	302
Branch	246	--	3	53
Calhoun	787	1	2	171
Cass	198	--	--	65
Charlevoix	110	--	1	29
Cheboygan	102	1	--	34
Chippewa	147	--	1	45
Clare	116	--	--	35
Clinton	303	--	--	56
Crawford	51	--	--	13
Delta	226	--	--	72
Dickinson	133	--	--	49
Eaton	410	3	1	95
Emmet	126	2	--	29
Genesee	2,460	38	13	433
Gladwin	124	--	1	28
Gogebic	105	--	--	29
Grand Traverse	303	4	2	73
Gratiot	274	--	1	63
Hillsdale	261	--	1	81
Houghton	121	--	--	41
Huron	225	1	--	78
Ingham	1,335	10	7	305
Ionia	288	--	--	77
Iosco	144	1	1	35
Iron	60	--	--	25
Isabella	244	1	--	56
Jackson	973	2	4	201
Kalamazoo	970	5	2	234
Kalkaska	61	1	--	13
Kent	2,228	10	5	500
Keweenaw	7	--	--	4
Lake	37	--	--	17
Lapeer	381	2	2	71

TABLE XXIII-6. NUMBER OF LICENSES ISSUED FOR COSMETOLOGISTS, MANICURISTS, ELECTROLOGISTS, AND COSMETOLOGY SALONS IN MICHIGAN, BY COUNTY: 24 AUGUST 1978 (cont.)

County	Cosmetologists	Manicurists	Electrologists	Salons
Leelanau	65	--	--	19
Lenawee	663	1	2	151
Livingston	482	2	5	67
Luce	31	--	--	13
Mackinac	41	--	--	19
Macomb	5,346	92	19	409
Manistee	137	--	--	37
Marquette	285	--	1	74
Mason	129	--	1	40
Mecosta	144	--	1	35
Menominee	107	--	--	49
Midland	318	1	--	82
Missaukee	52	--	--	17
Monroe	633	4	3	107
Montcalm	308	--	--	84
Montmorency	62	--	1	19
Muskegon	958	4	3	259
Newaygo	184	--	1	60
Oakland	5,874	362	72	768
Oceana	149	--	--	47
Ogemaw	94	--	--	33
Ontonagon	45	--	--	22
Osceola	111	--	1	35
Oscoda	37	1	--	12
Otsego	79	--	1	16
Ottawa	908	2	2	185
Presque Isle	92	--	--	19
Roscommon	115	--	--	32
Saginaw	1,201	5	3	213
Sanilac	297	1	--	79
Schoolcraft	46	--	--	10
Shiawassee	445	2	2	98
St. Clair	843	4	1	163
St. Joseph	317	1	10	91
Tuscola	396	--	1	110
Van Buren	361	--	2	90
Washtenaw	1,070	12	14	179
Wayne	13,611	290	111	1,967
Wexford	128	--	--	38
Out of state	2,728	29	17	2
Foreign	121	1	1	--
Bad County Codes	--	--	--	1
TOTAL	55,543	899	335	9,677

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXIII-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 (cont.)

County	Establishments with payroll					All establishments	
			Payroll ($1,000)				
	Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Gladwin	30	1,276	234	36	59	94	1,918
Gogebic	69	4,420	1,070	359	416	159	5,165
Grand Traverse	216	19,805	5,867	1,258	1,028	437	21,934
Gratiot	95	5,545	1,444	346	326	235	6,831
Hillsdale	84	3,966	1,083	238	258	248	5,553
Houghton	88	5,843	1,306	326	360	214	7,056
Huron	98	4,717	1,258	405	369	252	6,228
Ingham	797	109,319	38,456	8,754	6,361	1,730	118,874
Ionia	85	4,310	1,121	221	224	266	6,083
Iosco	81	3,103	704	144	208	234	4,594
Iron	41	2,946	812	186	194	110	3,580
Isabella	98	8,183	2,575	564	628	260	9,711
Jackson	371	35,164	11,104	2,642	2,153	902	40,181
Kalamazoo	581	78,318	26,240	6,034	4,448	1,324	85,823
Kalkaska	15	464	105	13	31	49	785
Kent	1,276	191,971	64,460	15,339	10,950	2,718	208,102
Keweenaw	9	502	137	8	21	20	582
Lake	21	548	117	26	34	55	817
Lapeer	1 [illegible]	6,825	2,153	474	338	261	8,287
Leelanau	55	4,205	1,317	285	252	123	5,079
Lenawee	231	17,396	5,482	1,249	1,193	602	20,886
Livingston	131	12,189	3,649	839	774	351	14,485
Luce	28	903	190	52	48	69	1,249
Mackinac	93	6,941	1,987	171	150	199	7,766
Macomb	1,450	185,291	68,248	15,392	9,543	3,161	204,489

TABLE XXIII-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 (cont.)

County	Establishments with payroll					All establishments	
			Payroll ($1,000)				
	Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Manistee	62	3,994	1,022	236	276	178	4,935
Marquette	151	9,596	2,504	575	630	342	11,332
Mason	84	5,260	1,558	324	308	184	6,415
Mecosta	50	3,722	943	182	190	150	4,544
Menominee	53	2,739	701	168	189	152	3,621
Midland	139	30,168	9,738	2,347	1,416	321	31,835
Missaukee	12	286	57	9	9	43	628
Monroe	199	17,071	5,168	1,058	952	526	20,258
Montcalm	91	4,856	1,022	241	274	271	6,627
Montmorency	17	633	199	38	50	66	1,054
Muskegon	372	32,384	10,146	2,262	2,010	903	37,498
Newaygo	58	2,495	663	157	153	184	3,517
Oakland	3,336	693,733	235,115	55,067	28,522	7,298	744,398
Oceana	46	1,929	532	90	95	127	2,584
Ogemaw	42	2,517	777	76	69	108	3,189
Ontonagon	23	979	217	61	90	70	1,470
Osceola	26	812	176	35	51	98	1,768
Oscoda	17	559	131	32	43	54	819
Otsego	65	6,244	2,017	542	461	126	6,921
Ottawa	293	26,650	7,947	1,754	1,576	719	30,965
Presque Isle	35	1,393	294	75	85	92	1,826
Roscommon	75	2,914	800	159	147	238	4,312
Saginaw	572	70,659	23,012	5,432	4,111	1,145	76,792
St. Clair	300	25,783	8,515	1,874	1,549	802	31,016
St. Joseph	126	10,039	2,554	590	543	355	12,037

TABLE XXIII-3. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 (cont.)

County	Establishments with payroll					All establishments	
			Payroll ($1,000)		Paid employees 12 March[a]		
	Number	Receipts ($1,000)	Entire year	First quarter		Number	Receipts ($1,000)
Sanilac	67	3,042	713	151	175	237	4,889
Schoolcraft	45	1,891	358	56	87	96	2,335
Shiawassee	137	13,346	3,329	717	589	376	15,802
Tuscola	83	3,633	1,121	263	270	256	5,263
Van Buren	144	14,301	3,332	750	549	368	16,271
Washtenaw	665	113,277	42,992	9,596	5,701	1,726	124,101
Wayne	7,180	1,740,721	503,581	117,622	72,650	15,006	1,831,365
Wexford	79	6,181	1,763	483	465	166	7,498
TOTAL	24,718	3,918,967	1,221,903	283,212	186,018	56,080	4,257,058

SOURCE: Bureau of the Census, U.S. Census of Selected Service Industries, 1972, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5.

a. Week including 12 March.

TABLE XXIII-7. NUMBER OF LICENSES ISSUED FOR BARBERS, STUDENT BARBERS, AND BARBER SHOPS IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Barbers[a]	Apprentices and Students	Shops	County	Barbers[a]	Apprentices and Students	Shops
Alcona	3	3	5	Lapeer	17	11	22
Alger	5	--	5	Leelanau	3	1	6
Allegan	21	1	33	Lenawee	32	7	41
Alpena	9	3	14	Livingston	16	4	27
Antrim	7	1	9	Luce	1	1	2
Arenac	8	1	7	Mackinac	4	1	10
Baraga	5	2	9	Macomb	208	280	200
Barry	19	1	24	Manistee	6	1	16
Bay	45	9	67	Marquette	18	4	33
Benzie	1	3	5	Mason	12	--	10
Berrien	40	13	63	Mecosta	15	3	19
Branch	11	5	14	Menominee	7	1	11
Calhoun	34	11	83	Midland	10	7	34
Cass	6	1	12	Missaukee	1	--	3
Charlevoix	5	--	10	Monroe	23	10	40
Cheboygan	12	2	13	Montcalm	10	1	19
Chippewa	13	1	22	Montmorency	4	1	5
Clare	12	2	14	Muskegon	55	11	70
Clinton	7	2	21	Newaygo	4	2	5
Crawford	3	1	3	Oakland	248	139	400
Delta	13	2	16	Oceana	6	1	11
Dickinson	11	1	14	Ogemaw	5	1	13
Eaton	9	7	31	Ontonagon	2	--	9
Emmet	6	1	19	Osceola	4	1	9
Genesee	141	162	248	Oscoda	5	1	7
Gladwin	3	1	11	Otsego	3	2	5
Gogebic	9	1	16	Ottawa	35	8	45
Grand Traverse	12	2	25	Presque Isle	6	2	8
Gratiot	12	2	27	Roscommon	13	1	15
Hillsdale	8	2	26	Saginaw	52	31	106
Houghton	14	1	19	Sanilac	10	13	28
Huron	13	2	17	Schoolcraft	2	2	6
Ingham	58	46	139	Shiawassee	17	21	33
Ionia	12	5	29	St. Clair	44	14	65
Iosco	12	2	18	St. Joseph	11	1	21
Iron	7	1	12	Tuscola	22	15	26
Isabella	9	6	14	Van Buren	13	3	24
Jackson	41	18	59	Washtenaw	61	21	89
Kalamazoo	48	22	95	Wayne	1,131	1,048	1,522
Kalkaska	5	--	3	Wexford	14	1	14
Kent	93	30	187	Outstate	330	16	--
Keweenaw	--	--	1	Foreign	6	3	--
Lake	5	--	8	Unassigned	1	--	--
				TOTAL	3,294	2,067	4,496

SOURCE: Michigan Department of Licensing and Regulation, special release.

a. Includes apprentices.

TABLE XXIII-8. NUMBER OF LICENSES ISSUED FOR MORTICIANS, FUNERAL DIRECTORS, AND MORTUARIES IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Morticians	Funeral directors	Mortuaries	County	Morticians	Funeral directors	Mortuaries
Alcona	4	--	2	Lapeer	17	--	6
Alger	2	--	1	Leelanau	3	--	1
Allegan	12	--	11	Lenawee	31	--	16
Alpena	10	1	5	Livingston	17	--	6
Antrim	9	--	5	Luce	2	--	1
Arenac	4	--	3	Mackinac	4	--	1
Baraga	3	--	2	Macomb	138	5	37
Barry	13	--	5	Manistee	17	--	4
Bay	27	--	11	Marquette	21	1	8
Benzie	4	--	3	Mason	9	--	4
Berrien	46	--	20	Mecosta	13	--	4
Branch	11	--	6	Menominee	9	1	6
Calhoun	38	--	13	Midland	18	1	4
Cass	9	--	5	Missaukee	5	--	2
Charlevoix	6	1	3	Monroe	21	1	13
Cheboygan	10	--	3	Montcalm	20	--	9
Chippewa	9	--	4	Montmorency	2	--	2
Clare	7	--	4	Muskegon	37	--	11
Clinton	16	--	6	Newaygo	10	1	6
Crawford	2	--	1	Oakland	199	2	49
Delta	16	--	9	Oceana	10	--	4
Dickinson	15	--	5	Ogemaw	6	--	3
Eaton	23	2	11	Ontonagon	3	--	2
Emmet	10	1	3	Osceola	6	--	4
Genesee	91	2	24	Oscoda	2	--	1
Gladwin	6	--	3	Otsego	9	1	2
Gogebic	13	--	6	Ottawa	30	2	12
Grand Traverse	18	--	4	Presque Isle	6	--	5
Gratiot	25	--	8	Roscommon	8	1	4
Hillsdale	16	--	8	Saginaw	40	1	20
Houghton	21	--	13	Sanilac	23	--	10
Huron	15	--	10	Schoolcraft	4	--	2
Ingham	62	1	13	Shiawassee	17	1	9
Ionia	20	1	11	St. Clair	43	1	16
Iosco	12	--	5	St. Joseph	20	--	9
Iron	7	--	4	Tuscola	21	1	11
Isabella	8	--	2	Van Buren	24	--	15
Jackson	36	1	17	Washtenaw	38	1	11
Kalamazoo	44	2	17	Wayne	467	10	180
Kalkaska	2	--	1	Wexford	6	--	5
Kent	112	5	33	Outstate	209	7	--
Keweenaw	0	--	0	Foreign	3	--	--
Lake	2	--	2				
				TOTAL	2,403	55	837

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXIII-9. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO HOTELS, MOTELS, TRAILER PARKS, AND CAMPS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
1. Mackinac	1,291	1. Mackinac	$ 588	1. Ingham	$ 338,031
2. Roscommon	983	2. Emmet	417	2. Washtenaw	246,976
3. Wexford	805	3. Wexford	364	3. Saginaw	223,250
4. Keweenaw	696	4. Charlevoix	277	4. Wayne	196,402
5. Cheboygan	592	5. Keweenaw	247	5. Midland	193,143
6. Schoolcraft	536	6. Antrim	243	6. Oakland	192,870
7. Alger	470	7. Crawford	234	7. Kent	165,105
8. Emmet	395	8. Otsego	196	8. Macomb	146,738
9. Crawford	371	9. Leelanau	187	9. Calhoun	141,314
10. Otsego	371	10. Grand Traverse	153	10. Livingston	131,238
11. Montmorency	368	11. Cheboygan	152	11. Kalamazoo	129,395
12. Benzie	352	12. Roscommon	137	12. Charlevoix	118,450
13. Lake	344	13. Schoolcraft	134	13. Genesee	116,033
14. Leelanau	330	14. Manistee	93	14. Shiawassee	107,222
15. Chippewa	327	15. Benzie	91	15. Emmet	105,506
16. Oscoda	327	16. Clare	90	16. Ottawa	100,772
17. Antrim	324	17. Ontonagon	79	17. Jackson	97,647
18. Alcona	272	18. Dickinson	71	18. Berrien	91,545
19. Ontonagon	250	19. Luce	67	19. Clare	82,200
20. Kalkaska	210	20. Chippewa	62	20. Monroe	81,931
21. Grand Traverse	205	21. Mason	62	21. St. Clair	79,907
22. Gogebic	195	22. Delta	59	22. Antrim	75,000
23. Manistee	190	23. Gogebic	59	23. Grand Traverse	74,535
24. Mason	172	24. Lake	55	24. Dickinson	66,308
25. Iron	158	25. Oscoda	55	25. Crawford	62,923

TABLE XXIII-9. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO HOTELS, MOTELS, TRAILER PARKS, AND CAMPS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
26. Ogemaw	150	26. Montmorency	$ 54	26. Muskegon	$ 56,860
27. Alpena	138	27. Alger	51	27. Leelanau	56,684
28. Baraga	130	28. Iosco	48	28. Houghton	53,767
29. Arenac	125	29. Houghton	45	29. Otsego	52,814
30. Delta	115	30. Kalkaska	44	30. Delta	51,302
31. Newaygo	111	31. Livingston	43	31. Bay	50,620
32. Clare	109	32. Washtenaw	43	32. Manistee	49,175
33. Dickinson	107	33. Berrien	42	33. Lenawee	48,864
34. Presque Isle	106	34. Midland	42	34. Mecosta	46,375
35. Missaukee	104	35. Ingham	41	35. Mackinac	45,564
36. Huron	102	36. Alpena	39	36. Wexford	45,167
37. Houghton	83	37. Alcona	38	37. Eaton	43,500
38. Allegan	81	38. Calhoun	35	38. Marquette	42,314
39. St. Joseph	78	39. Iron	35	39. Van Buren	41,394
40. Gladwin	75	40. St. Clair	34	40. Oceana	39,071
41. Marquette	75	41. Ottawa	34	41. Lapeer	37,500
42. Oceana	73	42. Marquette	32	42. Gratiot	36,167
43. Menominee	72	43. Saginaw	32	43. Mason	35,762
44. Montcalm	63	44. Arenac	30	44. Keweenaw	35,438
45. Barry	60	45. Kent	30	45. St. Joseph	35,105
46. Branch	56	46. Huron	28	46. Ontonagon	31,407
47. Cass	56	47. Kalamazoo	28	47. Gogebic	30,325
48. Van Buren	55	48. Oceana	28	48. Ionia	29,609
49. Mecosta	52	49. Oakland	27	49. Alpena	28,568
50. Sanilac	52	50. St. Joseph	27	50. Huron	27,667

TABLE XXIII-9. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO HOTELS, MOTELS, TRAILER PARKS, AND CAMPS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
51. Hillsdale	49	51. Wayne	$ 27	51. Gladwin	$ 26,727
52. Ionia	48	52. Mecosta	24	52. Benzie	25,935
53. Berrien	46	53. Jackson	23	53. Cheboygan	25,660
54. St. Clair	43	54. Ogemaw	23	54. Schoolcraft	24,956
55. Muskegon	36	55. Van Buren	23	55. Arenac	23,667
56. Osceola	36	56. Gladwin	20	56. Branch	23,545
57. Clinton	35	57. Muskegon	20	57. Barry	22,917
58. Ottawa	34	58. Monroe	19	58. Allegan	22,268
59. Livingston	33	59. Allegan	18	59. Iron	22,136
60. Gratiot	30	60. Baraga	15	60. Kalkaska	20,769
61. Iosco	28	61. Genesee	15	61. Hillsdale	19,684
62. Lenawee	26	62. Shiawassee	15	62. Cass	19,667
63. Calhoun	25	63. Barry	14	63. Chippewa	19,054
64. Bay	24	64. Ionia	14	64. Osceola	18,667
65. Monroe	24	65. Macomb	14	65. Clinton	18,353
66. Tuscola	24	66. Newaygo	14	66. Menominee	18,333
67. Charlevoix	23	67. Lenawee	13	67. Tuscola	18,250
68. Isabella	23	68. Menominee	13	68. Montcalm	17,423
69. Midland	22	69. Missaukee	13	69. Iosco	17,316
70. Kalamazoo	21	70. Branch	13	70. Luce	17,310
71. Kent	18	71. Bay	12	71. Oscoda	16,991
72. Washtenaw	18	72. Cass	11	72. Lake	15,864
73. Jackson	17	73. Gratiot	11	73. Ogemaw	15,579
74. Lapeer	15	74. Montcalm	11	74. Sanilac	15,579
75. Oakland	14	75. Hillsdale	10	75. Montmorency	14,619

TABLE XXIII-9. RANKINGS OF MICHIGAN COUNTIES ACCORDING TO HOTELS, MOTELS, TRAILER PARKS, AND CAMPS PER 100,000 POPULATION, SALES PER CAPITA, AND SALES PER ESTABLISHMENT: 1972 (cont.)

County	Establishments per 100,000 population	County	Sales per capita	County	Sales per establishment
76. Saginaw	14	76. Sanilac	$ 8	76. Roscommon	$ 13,965
77. Shiawassee	14	77. Osceola	7	77. Alcona	13,818
78. Genesee	13	78. Clinton	6	78. Newaygo	13,031
79. Wayne	13	79. Eaton	5	79. Missaukee	12,875
80. Ingham	12	80. Lapeer	5	80. Baraga	11,300
81. Eaton	11	81. Tuscola	4	81. Alger	10,923
82. Macomb	10	82. Isabella	(D)	82. Isabella	(D)
83. Luce	4	83. Presque Isle	(D)	83. Presque Isle	(D)
TOTAL	375		31		82,361

SOURCES: Adapted from Bureau of the Census, U.S. Census of Selected Service Industries, 1972, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, Current Population Reports, Series P-26, No. 69 (Washington, D.C.: 1974), Table 1.

D: Data withheld to avoid disclosing figures for individual companies.

XXIV. INTERNATIONAL TRADE

The first Survey of the Origin of Exports by Manufacturing Establishments was organized in response to public and congressional requests for information on the geographic source of manufactured goods sold to customers in other countries. The Survey has been repeated at three-year intervals since the first one, for 1960, was completed.

The Bureau of the Census sends copies of the reporting form to over 20,000 manufacturing establishments with 100 or more employees. Establishments with exports valued at $25,000 or more, f.o.b. plant, are asked to report their exports. These replies are the basis for the geographic allocation of reported export shipments by the manufacturers themselves.

Estimated values of exports, f.o.b. producing plant, for each state or Standard Metropolitan Statistical Area represent the sum of reported exports and exports unknown to the manufacturer; for example, exports handled through a wholesaler. The latter figures are calculated on the basis of the geographical distribution of total manufacturing employment, since there is no survey of middlemen to make that determination.

Other foreign trade statistics are compiled by the Bureau of Customs of the United States Department of Commerce. These figures represent the flow through Michigan and other states.

Automotive News magazine as well as Ward's Communications, Inc., and the Motor Vehicle Manufacturers Association compile statistics on the manufacture of North American makes of motor vehicles in Canada, and the United States. For Table XXIII-6, statistics were taken from Automotive News' Market Data Book, a special annual edition.

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TABLE XXIV-1. VALUE OF EXPORT SHIPMENTS BY MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES AND IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS, F.O.B. PRODUCING PLANT: 1963, 1966, 1969, 1971, 1972, AND 1976

(In millions of dollars)

Area	1963	1966	1969	1971	1972	1976
Estimated[a]						
Michigan	1,116.3	1,568.2	2,613.1	2,834.0	3,522.2	6,888.1
United States	16,472.6	21,299.2	29,210.0	33,132.3	36,608.0	83,093.0
Reported[b]						
Michigan	836.4	1,230.0	2,018.1	2,127.7	2,562.0	n.a.
United States	11,003.7	14,952.9	20,403.3	22,813.8	25,510.6	60,105.1
Standard Metropolitan Statistical Area:						
Ann Arbor	n.a.	47.9	111.7	173.4	196.7	289.0[a]
Bay City	n.a.	3.3	7.2	18.8	21.9	79.7[a]
Detroit	489.7	726.1	1,191.1	1,602.2	1,847.9	3,753.0[a]
Flint	n.a.	(c)	(d)	(e)	(e)	703.6[a]
Grand Rapids	32.1	51.7	55.4	111.3	131.6	232.6[a]
Jackson	n.a.	19.3	26.4	39.4	44.8	73.1[a]
Kalamazoo-Portage	n.a.	22.1	36.8	56.2	60.2	218.5[a]
Lansing-East Lansing	n.a.	79.1	118.1	117.2	122.2	464.1[a]
Muskegon-Muskegon Heights-Norton Shores	n.a.	20.7	24.5	95.1	88.2	116.0[a]
Saginaw	n.a.	17.1	45.4	76.1	78.8	189.5[a]

SOURCE: Bureau of the Census, Current Industrial Reports, Series M161, 1960 and 1963 (discontinued in 1963) and Series MA161, 1966, 1969, 1971, and 1972 (Washington, D.C.: periodically), MA161(72)-2, Tables 3 and 4 (1972); and Annual Survey of Manufactures 1976 (Washington, D.C.: 1978), M76(AS)-8, Tables A, 2, and 4.

a. Reported value of exports by manufacturers plus the value of exports handled through wholesalers or other purchasers whose intention to export the products was not known to the manufacturer.

b. Value of known exports from a survey of firms with 100 or more employees, exporting $25,000 or more.

c. $50 million or over but less than $100 million.

d. $100 million or over but less than $200 million.

e. More than $200 million.

n.a.: not available.

TABLE XXIV-3. EMPLOYMENT RELATED TO EXPORTS IN MANUFACTURING PLANTS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP, F.O.B. PRODUCING PLANT: 1969, 1971, 1972, AND 1976

(In thousands)

Industry group	Michigan				United States			
	1969	1971	1972	1976	1969	1971	1972	1976
Food and kindred products	.6	.6	.6	.9	24.1	22.8	24.1	36.9
Paper and allied products	.3	.4	.4	.4	16.2	17.9	16.4	20.9
Chemicals and allied products	3.0	2.3	3.0	3.8	53.0	56.2	54.1	74.5
Rubber and plastics products	.4	.5	.9	.8	13.1	13.6	14.9	23.0
Stone, clay, and glass products	.8	1.1	1.2	1.0	11.9	11.6	11.7	17.2
Primary metal industries	2.7	3.1	2.9	7.3	38.1	30.0	28.3	30.4
Fabricated metal products[a]	5.6	6.4	6.6	7.3	39.8	37.5	37.1	69.9
Nonelectrical machinery	13.4	10.9	10.6	13.2	188.8	197.4	205.2	294.5
Electrical equipment and supplies[b]	2.4	2.6	2.8	3.6	101.4	92.0	101.5	196.3
Transportation equipment	26.5	23.6	22.9	32.0	149.0	139.9	136.9	203.2
Instruments and related products	.7	(c)	1.0	1.6	38.9	41.7	42.6	80.3
All others	2.6	3.3[d]	3.1	2.0	104.4	85.3	97.6	126.1
TOTAL	59.0	54.8	56.0	73.9	778.7	745.9	770.4	1,173.2

SOURCE: Bureau of the Census, Current Industrial Reports, Series MA161, 1969 and 1972 (Washington, D.C.: periodically), MA161(72)-2, Table 2 (1971 and 1972 data); and Annual Survey of Manufacturers 1976 (Washington, D.C.: 1978), M76(AS)-8, Tables 3A and 5A.

a. Definition expanded in 1967 to include captive automotive stampings plants of motor vehicle manufacturers.

b. Definition contracted in 1967 to exclude captive automotive stampings plants of motor vehicle manufacturers.

c. 1,000 to 2,499.

d. Includes instruments and related products.

TABLE XXIV-4. VALUE OF IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT AND THE UNITED STATES, VESSEL AND AIR SHIPMENTS AND TOTAL: 1969-1978

(In millions of dollars)

Year	Total		Vessel		Air	
	Detroit	United States	Detroit	United States	Detroit	United States
			General imports			
1969	3,676.0	36,051.8	302.1	21,613.9	32.2	3,190.4
1970	4,166.1	39,963.2	334.3	24,783.3	44.8	3,415.1
1971	5,131.2	45,562.8	483.3	27,036.0	36.2	4,014.7
1972	5,901.4	55,582.8	495.2	33,665.6	56.8	5,194.4
1973	6,829.5	69,475.7	465.2	42,601.7	72.9	6,929.7
1974[a]	8,466.1	100,972.3	504.4	67,165.2	87.8	8,921.7
1975[a]	8,205.1	96,104.4	470.2	63,224.3	70.6	8,841.9
1976[a]	10,280.5	120,677.4	705.0	80,758.7	74.7	10,847.0
1977[a]	11,483.1	146,816.7	999.8	100,854.2	72.6	12,491.4
1978	12,728.1	172,025.5	805.4	115,499.0	81.0	17,923.1
			Exports of domestic and foreign merchandise			
1969	4,172.2	37,988.3	165.9	20,073.0	77.7	5,128.6
1970	4,065.7	43,226.4	168.0	24,615.0	102.2	5,984.2
1971	4,892.2	44,129.9	175.6	22,829.3	75.4	6,296.9
1972	5,848.2	49,778.2	141.0	25,758.0	94.2	7,516.0
1973	7,036.5	71,338.8	195.6	39,853.8	161.1	10,303.6
1974[a]	8,707.3	98,507.2	226.9	55,904.8	198.6	13,781.2
1975[a]	9,751.1	107,651.8	249.4	61,801.1	167.5	14,554.6
1976[a]	10,889.1	114,997.2	283.9	64,868.8	184.1	16,905.5
1977[a]	12,115.5	120,163.2	354.2	65,596.5	212.1	19,660.3
1978	13,363.8	143,659.8	578.1	77,530.8	229.7	25,896.7

SOURCE: Bureau of the Census, Highlights of U.S. Export and Import Trade, December 1968 through December 1978 (Washington, D.C.: monthly), Tables I-15 and E-4 (December 1978).

a. Transaction value of imports at the foreign port of exportation, including costs to place it alongside the ship, or f.a.s. (free alongside ship) value. For prior years the figures and customs values, which generally represented the value in the foreign country for collection of import duties.

TABLE XXIV-5. WEIGHT OF WATERBORNE IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT BY PORT: 1972-1977

(Millions of pounds)

Port	Imports						Exports					
	1972	1973	1974	1975	1976	1977	1972	1973	1974	1975	1976	1977
Detroit	7,909	8,010	6,452	7,445	9,986	10,225	1,115	1,834	1,343	1,199	902	881
Port Huron	24	46	51	34	504	748	11	18	10	2	10	12
Sault Ste. Marie	48	38	12	0	37	52	110	248	703	596	440	637
Saginaw-Bay City	449	468	251	157	437	496	474	664	536	592	438	443
Muskegon	168	246	39	24	133	113	72	26	10	1	8	31
Grand Haven	68	0	0	32	94	52	127	104	0	46	9	0
Rogers City	0	0	33	0	34	0	1,171	1,773	1,964	1,616	1,386	1,868
Detour	0	0	0	0	1	29	406	428	466	853	901	735
Escanaba	0	0	0	0	0	0	0	0	0	860	958	396
Presque Isle	0	0	0	0	0	29	263	321	0	0	2,366	1,854
Alpena	52	146	176	4	216	58	1,414	1,528	2,283	3,340	3,302	3,007
Ferrysburg	55	104	104	37	39	38	727	0	0	0	0	0
TOTAL	8,773	9,058	7,118	7,733	11,481	11,840	5,889	6,944	7,315	9,106	10,717	9,864

SOURCE: Bureau of the Census, Waterborne Exports and General Imports, 1972 through 1977 (Washington, D.C.: annually), FT 985-77-13, Tables I-1 and E-1 (1977).

a. Less than 500,000 pounds.

XXV. OTHER ENTERPRISE STATISTICS

This chapter includes material that cannot easily be categorized within the other chapters relating to business in Michigan. Statistics on patents and on research and development activities of businesses are collected and published by various agencies of the federal government. Minority-owned enterprise data on a national, state, and SMSA basis were collected and published by the Bureau of the Census, using the files of the Internal Revenue Service and the Social Security Administration as well as a mail canvass. Minorities include Negroes and other racial minorities and Spanish-speaking groups.

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TABLE XXV-1. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATION, AND NET PROFITS OF NONFARM PROPRIETORSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1975

Year	Number	Thousands of dollars			
		Business receipts	Payrolls	Depreciation	Net profit
		Michigan			
1965	229,649	6,720,734	792,371	181,681	1,130,182
1966	215,769	7,632,329	865,609	193,124	1,160,758
1967	214,644	8,221,935	996,612	191,016	1,264,783
1968	219,172	8,203,156	1,038,499	209,713	1,318,421
1969	229,493	8,261,634	1,007,738	n.a.	1,325,899
1970	221,780	7,953,693	939,301	n.a.	1,232,920
1971	241,718	8,245,805	955,840	n.a.	1,240,018
1972	246,562	8,748,695	1,018,386	239,825	1,372,304
1973	257,408	9,362,591	1,114,025	274,870	1,542,548
1974	261,798	9,893,119	1,076,543	288,916	1,458,146
1975	264,716	9,892,274	1,090,173	303,934	1,418,023
		United States			
1965	5,855,257	167,032,214	19,251,839	4,348,078	24,145,658
1966	5,901,571	171,643,054	19,653,340	4,481,983	25,504,318
1967	5,925,935	175,660,827	20,138,994	4,677,045	26,621,637
1968	5,998,610	184,617,439	21,229,554	4,779,256	28,299,606
1969	6,155,374	193,894,487	22,364,904	n.a.	29,739,427
1970	6,313,259	195,792,289	22,362,930	n.a.	30,022,920
1971	6,612,225	211,193,510	23,513,831	n.a.	31,516,479
1972	6,957,436	224,128,730	24,466,884	6,071,144	33,911,098
1973	7,445,153	248,785,404	26,924,663	6,862,388	38,058,018
1974	7,688,795	264,802,830	27,391,496	7,470,131	38,980,898
1975	7,759,576	273,954,741	29,018,942	7,958,143	39,636,453

SOURCE: Internal Revenue Service, Statistics of Income, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: annually), Table 1.4.

n.a.: not available.

TABLE XXV-2. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATIONS, AND NET PROFITS OF PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1975

Year	Number	Thousands of dollars			
		Business receipts	Payrolls	Depreciation	Net profit
		Michigan			
1965	30,763	2,989,223	384,357	75,163	406,845
1966	31,662	2,953,941	380,274	98,563	402,722
1967	30,935	2,953,666	411,458	95,772	419,930
1968	31,721	3,065,198	410,656	111,077	447,845
1969	31,374	3,204,384	411,487	n.a.	396,754
1970	31,859	2,802,157	354,031	n.a.	252,589
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	33,413	3,269,015	370,382	192,886	273,833
1973	34,408	3,856,285	455,088	241,160	298,961
1974	36,592	4,302,715	490,288	266,340	249,977
1975	35,537	4,289,002	476,074	324,096	253,272
		United States			
1965	786,558	68,595,859	9,384,714	2,162,066	9,027,981
1966	796,116	72,808,301	9,805,683	2,361,243	9,656,194
1967	780,885	72,515,107	10,169,459	2,599,921	10,216,025
1968	795,495	75,213,174	10,617,664	2,903,298	10,756,354
1969	800,391	80,009,120	11,148,745	n.a.	9,788,097
1970	811,845	82,982,213	11,558,441	n.a.	9,122,597
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	876,150	95,435,014	12,587,899	5,296,742	8,889,094
1973	915,994	109,476,011	13,595,004	6,382,308	7,929,218
1974	952,175	125,780,194	14,961,016	7,785,440	7,973,323
1975	964,052	134,511,262	16,179,238	9,197,292	7,000,900

SOURCE: Internal Revenue Service, Statistics of Income, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: annually), Table 2.4.

TABLE XXV-3. NUMBER, RECEIPTS, PAYROLL, AND NET PROFIT REPORTED TO THE INTERNAL REVENUE SERVICE BY PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975

Industry	Michigan				United States			
	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)
Agriculture, forestry, and fishing	3,081	265.2	26.6	36.5	122,264	12,631.5	1,055.7	880.6
Farms	2,908	248.3	23.0	33.5	109,095	11,517.3	895.1	770.4
Field crop	775	42.6	2.1	9.1	40,740	4,027.1	320.7	648.8
Livestock	1,628	122.4	8.6	6.9	51,737	5,696.8	248.1	52.8
Mining	82	51.1	(b)	2.2	15,377	4,014.1	282.2	(469.1)
Oil and gas extraction	60	39.4	(b)	1.7	12,811	2,641.8	106.8	(600.3)
Construction	2,287	378.9	47.7	36.7	60,658	12,303.2	1,805.8	789.2
General contractors	760	219.5	19.6	9.5	24,520	8,840.8	1,050.0	247.4
Special trade contractors	1,527	159.5	25.1	27.1	36,070	3,455.4	753.1	542.2
Manufacturing	930	205.6	35.6	31.8	29,413	6,866.3	1,189.9	340.2
Transportation, communication, and electric, gas, and electric services	298	26.0	(b)	6.0	17,060	2,451.5	304.5	(22.5)
Transportation	285	21.5	(b)	5.2	14,381	1,962.6	243.8	78.9
Wholesale and retail trade	8,661	1,771.3	147.9	117.8	193,494	45,172.6	3,310.8	2,653.6
Wholesale trade	1,050	459.8	24.4	33.3	30,922	16,032.7	739.8	818.6
Retail trade	7,611	1,311.9	123.5	84.5	162,395	29,113.9	2,568.7	1,832.2
Building materials, garden supply	616	119.0	11.0	8.7	9,177	2,069.0	179.3	171.1
Food stores	856	320.1	17.9	14.0	22,081	6,314.2	405.5	263.1
Grocery stores	558	248.9	11.5	9.5	14,961	5,190.4	295.9	206.5
Other	298	71.2	6.4	4.5	7,120	1,123.7	109.6	56.6

TABLE XXIV-2. VALUE OF EXPORT SHIPMENTS BY MANUFACTURING PLANTS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP, F.O.B. PRODUCING PLANT: 1969, 1971, 1972, AND 1976

(In millions of dollars)

Industry group	Michigan				United States			
	1969	1971	1972	1976	1969	1971	1972	1976
Food and kindred products	50.2	59.7	61.1	176.0	2,160.0	2,715.8	3,046.2	5,883.0
Paper and allied products	13.4	20.1	16.8	38.2	790.0	949.8	988.4	2,260.7
Chemicals and allied products	141.6	122.5	180.3	421.2	3,049.0	3,519.7	3,756.8	9,271.2
Rubber and plastics products	13.2	15.1	35.3	43.9	387.8	452.3	519.3	1,270.4
Stone, clay, and glass products	27.1	35.9	48.9	54.7	341.6	377.5	408.7	901.7
Primary metal industries	109.4	111.8	126.1	652.2	1,782.0	1,435.6	1,490.2	2,935.7
Fabricated metal products[a]	190.1	244.1	312.2	478.1	1,180.6	1,296.6	1,429.3	3,702.5
Nonelectrical machinery	474.1	459.1	464.2	1,011.6	6,021.1	7,061.4	7,823.6	19,036.5
Electrical equipment and supplies	82.0	103.4	131.2	224.2	2,480.0	2,714.8	3,295.8	9,169.5
Transportation equipment[b]	1,417.5	1,529.9	1,736.1	3,586.3	6,174.4	7,571.2	7,841.7	16,518.1
Instruments and related products	17.7	(c)	27.8	64.9	1,086.8	1,343.1	1,530.9	3,758.3
All other	76.8	132.4[d]	382.4	136.8	3,756.7	3,694.5	4,477.1	8,390.4
TOTAL	2,613.1	2,834.0	3,522.2	6,888.1	29,210.0	33,132.3	36,608.0	83,098.0

SOURCE: Bureau of the Census, Current Industrial Reports, Series MA161, 1969 and 1972 (Washington, D.C.: periodically), MA161(72)-2, Table 2 (1971 and 1972 data); and Annual Survey of Manufacturers 1976 (Washington, D.C.: 1978) M76(AS)-8, Table 3A.

a. Definition expanded in 1967 to include captive automotive stampings plants of motor vehicle manufacturers.

b. Definition contracted in 1967 to exclude captive automotive stampings plants of motor vehicle manufacturers.

c. $25 million to $50 million.

d. Includes instruments and related products.

TABLE XXV-3. NUMBER, RECEIPTS, PAYROLL, AND NET PROFIT REPORTED TO THE INTERNAL REVENUE SERVICE BY PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

Industry	Michigan				United States			
	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)
Services	8,067	844.6	189.3	206.9	199,265	30,156.3	898.8	(3,584.2)
Hotels and other lodging places	631	51.6	12.1	(8.8)	14,573	2,851.8	18.3	35.6
Motels, motor hotels	292	15.4	3.3	(1.1)	7,160	1,544.5	78.7	(68.8)
Other lodging places	339	36.2	8.7	(7.7)	7,413	1,307.3	115.8	(341.0)
Personal services	1,301	69.0	16.9	(15.6)	24,088	1,171.2	7,350.3	7,195.6
Business services	1,485	113.9	30.3	18.4	28,251	2,178.6	306.5	(95.2)
Automobile repair and services	1,035	79.9	7.8	11.1	20,967	1,429.4	198.7	198.5
Auto repair shops	545	32.3	(b)	2.7	15,387	1,057.2	150.5	181.0
Auto parking and other	490	47.6	(b)	3.4	5,580	372.2	48.1	17.5
Amusement, recreation	754	56.3	7.7	4.4	16,213	1,608.5	315.5	(353.5)
Medical and health services	623	130.1	27.3	55.4	17,711	5,451.8	1,321.5	1,963.2
Off. of Physicians	365	77.7	9.3	47.7	9,457	3,309.5	645.2	1,565.8
Other medical, health services	258	52.5	18.0	7.7	8,254	2,142.3	584.4	397.5
Legal services	554	164.3	37.2	82.4	25,253	7,918.3	1,763.3	3,939.9
Accounting, auditing, bookkeeping services	272	78.3	27.2	22.1	10,962	4,211.7	1,669.7	1,128.9
Certified public accountants	252	72.6	25.8	19.4	7,599	3,965.9	1,593.9	1,067.4
Other services	1,097	44.6	12.1	1.5	23,861	1,083.2	133.8	36.2
All industries	38,445	4,537.3	499.1	286.8	1,073,147	146,028.5	17,074.3	7,371.2

SOURCE: Internal Revenue Service, Statistics of Income, 1975, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: 1978), Table 2.4.

a. Total receipts for industries in finance, insurance, and real estate; business receipts for all others.

b. Estimates are not shown separately because of the small number of returns in the sample. The data are included in the appropriate totals.

TABLE XXV-4. NUMBER, RECEIPTS, PAYROLL, AND NET PROFIT REPORTED TO THE INTERNAL REVENUE SERVICE BY SOLE PROPRIETORSHIPS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975

Industry	Michigan				United States			
	Number of businesses	Business receipts ($000,000)	Payroll ($000,000)	Net profit ($000,000)	Number of businesses	Business receipts ($000,000)	Payroll ($000,000)	Net profit ($000,000)
Agriculture, forestry and fishing	97,350	1,462.6	117.5	226.6	3,367,244	69,289.7	4,688.0	12,555.4
Farms	89,894	1,388.8	103.6	208.8	3,122,393	65,266.7	4,045.1	11,647.4
Field crop	44,650	477.2	22.8	78.5	1,334,421	28,809.1	1,756.9	7,240.5
Livestock	20,345	661.9	61.6	74.1	1,359,779	31,105.5	1,367.2	3,468.0
Other	24,899	249.6	19.2	56.3	428,193	5,352.1	921.0	938.8
Other agriculture	7,456	73.8	13.9	17.8	244,851	4,023.0	642.9	908.1
Mining	1,564	70.4	(a)	11.9	55,600	3,530.6	307.8	654.8
Construction	30,863	1,181.5	188.3	194.0	892,244	31,012.9	5,670.8	4,898.7
General bldg. contractors	6,196	375.4	35.7	43.4	138,605	10,383.2	1,518.7	1,052.8
Special trade contractors	24,438	779.9	144.6	147.3	682,455	17,712.8	3,565.7	3,439.2
Manufacturing	7,233	338.3	58.7	59.5	221,642	8,678.7	1,647.4	1,254.5
Transportation, communication, electric, gas, and sanitary services	15,196	367.8	50.2	52.6	355,255	10,009.0	1,288.6	1,588.4
Trucking and warehousing	10,875	311.4	42.2	45.5	254,162	8,113.5	1,026.4	1,220.5
Other	4,321	56.4	(a)	7.1	101,093	1,895.5	262.2	367.9
Wholesale and Retail trade	72,731	5,669.3	474.8	447.6	2,193,218	148,327.7	10,603.7	11,653.9
Wholesale trade	11,610	1,162.6	48.1	142.9	336,268	33,339.3	1,328.1	3,126.0
Retail trade	59,752	4,468.3	424.6	296.5	1,765,314	112,452.9	9,135.8	8,173.2
Food stores	7,206	1,014.0	60.1	54.4	178,195	21,632.4	1,241.8	1,126.7
Auto dealers and service stations	8,108	1,314.0	80.2	56.6	252,864	37,498.0	2,355.2	1,892.2
Eating and drinking places	9,521	844.7	173.0	63.3	265,979	15,482.7	2,647.7	1,361.8
Direct selling org.	13,692	81.8	(a)	12.3	406,469	2,255.0	31.9	360.3
Other retail trade	21,225	1,213.7	110.9	110.0	661,807	35,583.7	2,859.2	3,432.2

TABLE XXV-4. NUMBER, RECEIPTS, PAYROLL, AND NET PROFIT REPORTED TO THE INTERNAL REVENUE SERVICE BY SOLE PROPRIETORSHIPS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

	Michigan				United States			
Industry	Number of businesses	Business receipts ($000,000)	Payroll ($000,000)	Net profit ($000,000)	Number of businesses	Business receipts ($000,000)	Payroll ($000,000)	Net profit ($000,000)
Finance, Insurance, and Real Estate	24,650	409.7	26.9	164.3	743,906	12,137.8	667.6	4,484.2
Finance	448	57.8	(a)	(a)	24,992	783.7	33.6	234.3
Insurance agents, brokers, and service	6,041	128.4	16.9	68.7	218,125	4,364.5	357.6	1,904.9
Real estate	18,161	223.5	4.7	84.6	500,789	6,989.7	276.4	2,345.0
Services	104,437	1,771.5	275.5	669.7	3,034,056	55,997.0	8,172.0	20,125.2
Hotels and other lodgings	4,047	56.8	4.8	10.1	80,724	2,288.5	279.5	269.0
Personal services	23,703	229.7	43.3	67.9	605,236	6,877.0	1,373.1	1,813.8
Business services	17,945	206.1	25.1	77.4	562,049	6,730.3	917.0	2,362.9
Automobile repair and services	7,658	193.0	41.8	32.1	187,878	6,115.0	1,092.1	872.6
Amusement and recreation	8,008	106.3	26.7	20.5	233,296	2,640.8	292.0	572.9
Medical and health services	12,177	582.2	72.6	323.7	392,203	17,511.4	2,392.4	8,845.2
Offices of Physician	4,897	269.1	35.8	155.5	154,450	8,721.7	1,016.5	5,026.4
Offices of Dentists	3,274	231.3	28.6	128.4	82,735	5,163.5	782.9	2,408.5
Other medical services	4,006	81.8	8.2	39.9	155,018	3,626.2	593.0	1,410.3
Legal services	5,239	119.0	14.7	63.4	150,951	4,481.1	556.7	2,300.5
Other services	25,660	278.5	46.6	74.5	821,719	9,352.9	1,269.2	3,088.3
All Industries	354,610	11,281.0	1,193.7	1,834.0	10,881,969	339,221.4	33,064.1	57,272.2
All Non-farm	264,716	9,892.3	1,090.2	1,625.0	7,759,576	273,954.7	29,018.9	45,624.9

SOURCE: Internal Revenue Service, Statistics of Income, 1975, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: 1978), Table 1.5.

a. Estimates are not shown separately because of the small number of returns in the sample. The data are included in the appropriate totals.

TABLE XXV-5. EXPENDITURES FOR INDUSTRIAL RESEARCH AND DEVELOPMENT IN MICHIGAN AND THE UNITED STATES, BY SOURCE OF FUNDING: 1963-1975

(In millions of dollars)

Date	Federal funds		Company funds	
	Michigan	United States	Michigan	United States
1963	65	7,270	797	5,360
1964	65	7,600	835	5,753
1965	67	7,740	895	6,445
1966	98	8,287	977	7,254
1967	115	8,388	952	8,032
1968	98	8,559	1,086	8,876
1969	83	8,619	1,228	9,856
1970	77	7,785	1,171	10,073
1971	78	7,671	1,338	10,643
1972	86	8,090	1,500	11,347
1973	56	8,222	1,832	12,699
1974	78	8,332	1,990	14,038
1975	114	8,765	1,858	14,776

SOURCE: National Science Foundation, Research and Development in Industry, 1966 through 1975 (Washington, D.C.: annually), NS76-322, Table B-21 (1975), and National Science Foundation, Basic Research, Applied Research, and Development in Industry, 1964 (Washington, D.C.: 1966), NS66-28, Table 26.

NOTE: The bulk of expenditures for industrial research and development are for development and made by manufacturing industries.

TABLE XXV-6. NEW INCORPORATIONS IN MICHIGAN: 1958-1978

Year	Profit	Nonprofit	Foreign (out of state)	Total
1958	3,900	1,272	404	5,576
1959	4,812	1,209	527	6,548
1960	4,800	1,261	499	6,560
1961	4,788	1,312	497	6,597
1962	5,135	1,243	601	6,979
1963	5,102	1,241	528	6,871
1964	5,825	1,256	593	7,674
1965	6,152	1,286	627	8,065
1966	6,315	1,356	640	8,311
1967	6,341	1,361	715	8,417
1968	7,700	1,588	825	10,113
1969	9,586	1,767	1,064	12,417
1970	8,378	1,782	1,054	11,214
1971	8,270	1,993	1,082	11,345
1972	9,202	2,134	1,175	12,511
1973	9,709	1,878	1,093	12,680
1974	9,342	2,106	1,009	12,457
1975	9,996	2,138	926	13,060
1976	11,545	2,080	972	14,597
1977	13,273	2,082	956	16,311
1978	14,538	2,148	1,039	17,725

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor, 1979 (Lansing: 1979), Table B-19.

TABLE XXV-7. UNITED STATES PATENTS ISSUED TO RESIDENTS OF MICHIGAN AND THE UNITED STATES: 1966-1977

Year	Michigan	United States	Year	Michigan	United States
1966	3,675	57,700	1972	3,156	54,093
1967	3,306	54,191	1973	3,091	54,690
1968	2,968	48,804	1974	3,215	57,812
1969	3,160	53,422	1975	2,832	49,494
1970	2,831	49,821	1976	2,691	51,808
1971	3,386	58,693	T.Q.	621	11,368
			1977	2,474	47,292

SOURCE: Patent and Trademark Office, Commissioner of Patents and Trademarks, Annual Report, Fiscal Year: 1976 (Washington, D.C.: 1977), Table 7.

NOTE: 1966-1973 are calendar years and do not include reissues; 1974-1975 are fiscal years and include reissues. T.Q. = transitionary quarter, 1 July 1976 - 30 September 1976.

MICHIGAN'S STANDARD METROPOLITAN STATISTICAL AREAS

The concept of the "standard metropolitan statistical area" has been developed to meet the need for the presentation of statistics. The following excerpts from the U.S. Census of Population: 1960 and U.S. Census of Population: 1970 describe the purpose of the SMSAs.

"It has long been recognized that for many types of social and economic analysis it is necessary to consider as a unit the entire population in and around the city whose activities form an integrated social and economic system.... To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Office of Management and Budget has established 'standard metropolitan statistical areas' (SMSAs)."

"Except in New England, an SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more or 'twin cities' with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city."

"The Bureau of the Census recognizes 243 Standard Metropolitan Statistical Areas (SMSAs) in the United States and 4 in Puerto Rico, making a total of 247 in the 1970 census. These include the 231 SMSAs as defined and named in the Bureau of the Budget publication, Standard Metropolitan Statistical Areas: 1967, U.S. Government Printing Office, Washington, D.C. 20402. Since 1967, 16 SMSAs have been added, of which 2 were defined in January 1968 and an additional 14 were defined in February 1971 on the basis of the results of the 1970 census."

Users of this statistical abstract will find that certain tables pertain to areas in Michigan which are SMSAs.

Michigan's Standard Metropolitan Statistical Areas for 1940, 1950, 1967, 1971, and 1973 were composed as follows:

MICHIGAN SMSAs, COUNTIES INCLUDED

SMSA	1940[a]	1950	1967	1971	1973
Ann Arbor-Ypsilanti			Washtenaw	Washtenaw	Washtenaw
Battle Creek				Calhoun	Calhoun
					Barry
Bay City[b]		Bay	Bay	Bay	Bay

MICHIGAN SMSAs, COUNTIES INCLUDED (cont.)

SMSA	1940[a]	1950	1967	1971	1973
Detroit	Macomb Oakland Wayne	Macomb Oakland Wayne	Macomb Oakland Wayne	Macomb Oakland Wayne	Lapeer Livingston Macomb Oakland St. Clair Wayne
Flint	Genesee	Genesee	Genesee	Genesee Lapeer	Genesee Shiawassee
Grand Rapids	Kent	Kent	Kent	Kent Ottawa	Kent Ottawa
Jackson		Jackson	Jackson	Jackson	Jackson
Kalamazoo- Portage	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo Van Buren
Lansing-East Lansing	Ingham	Ingham	Ingham Clinton Eaton	Ingham Clinton Eaton	Ingham Ionia Clinton Eaton
Muskegon-Norton Shores-Muskegon Heights			Muskegon	Muskegon	Muskegon Oceana
Saginaw[b]	Saginaw	Saginaw	Saginaw	Saginaw	Saginaw

SOURCE: U.S.Bureau of the Census, U.S. Census of Population: 1940, 1950, 1960, and 1970; Bureau of the Budget, Metropolitan Statistical Areas.

NOTE: Because of changes in designation of individual areas from Metropolitan Areas in 1940 to Standard Metropolitan Areas (SMSAs) for the 1950 census, to Standard Metropolitan Statistical Areas for the 1960 census, and changes in the SMSAs since 1960, the census data presented by SMSAs are not strictly comparable.

a. The designation was changed from Metropolitan Area to Standard Metropolitan Area just prior to the 1950 census. It finally was standardized as Standard Metropolitan Statistical Area in 1959.

b. Saginaw and Bay City were classified in the 1940 census as the Metropolitan Area of Saginaw-Bay City which was composed of Bay and Saginaw counties.

APPENDIX II

SELECTED STATISTICS FOR COMPARING THE 50 UNITED STATES AND THE DISTRICT OF COLUMBIA

State	Rank order of population	Total resident population 1 July 1978 (thousands)	Land area (square miles)	Membership in U.S. House of Representatives based on 1970 census	Per capita personal income 1978	Per capita federal tax burden fiscal 1978	Per capita state and local tax collections fiscal 1977
California	1	22,294	156,361	43	$8,850	$2,007	$1,089
New York	2	17,748	47,831	39	8,267	1,906	1,252
Texas	3	13,014	262,134	24	7,697	1,781	637
Pennsylvania	4	11,750	44,966	25	7,733	1,767	770
Illinois	5	11,243	55,748	24	8,745	2,095	860
Ohio	6	10,749	40,975	23	7,812	1,813	641
MICHIGAN	7	9,189	56,817	19	8,742	1,950	878
Florida	8	8,594	54,090	15	7,505	1,704	628
New Jersey	9	7,327	7,521	15	8,818	2,140	931
Massachusetts	10	5,774	7,826	12	8,063	1,819	1,002
North Carolina	11	5,577	48,798	11	6,607	1,407	593
Indiana	12	5,374	36,097	11	7,696	1,776	652
Virginia	13	5,148	39,780	10	7,642	1,736	675
Georgia	14	5,048	58,073	10	6,700	1,435	609
Missouri	15	4,860	68,995	10	7,342	1,693	609
Wisconsin	16	4,679	54,464	9	7,597	1,726	870
Tennessee	17	4,357	41,328	8	6,489	1,425	564
Maryland	18	4,143	9,891	8	8,306	2,002	892
Minnesota	19	4,008	89,289	8	7,847	1,800	906
Louisiana	20	3,966	44,930	8	6,640	1,495	636
Washington	21	3,774	66,570	7	8,450	2,002	821
Alabama	22	3,742	50,708	7	6,247	1,368	507
Kentucky	23	3,498	39,650	7	6,615	1,405	601
Connecticut	24	3,099	4,862	6	8,914	2,297	885
South Carolina	25	2,918	30,225	6	6,242	1,311	549
Iowa	26	2,896	55,941	6	7,873	1,776	749
Oklahoma	27	2,880	68,782	6	6,951	1,550	598
Colorado	28	2,670	103,766	5	8,001	1,801	824
Oregon	29	2,444	96,184	4	7,839	1,811	793
Mississippi	30	2,404	47,296	5	5,736	1,168	527

TABLE XXV-3. NUMBER, RECEIPTS, PAYROLL, AND NET PROFIT REPORTED TO THE INTERNAL REVENUE SERVICE BY PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY: 1975 (cont.)

Industry	Michigan				United States			
	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)	Number of partnerships	Business receipts[a] ($000,000)	Payroll ($000,000)	Net profit ($000,000)
Automotive dealers and service stations	1,074	236.3	12.4	10.2	27,527	7,582.6	435.0	362.0
Motor vehicle dealers	221	74.2	3.2	2.8	5,566	8,005.9	167.0	93.4
Gasoline service stations	744	142.7	8.1	5.2	16,095	3,618.0	188.6	203.9
Apparel and accessory	352	35.9	4.0	4.1	13,082	1,342.4	131.8	132.9
Furniture and home furn. stores	314	80.8	7.7	9.9	11,034	1,731.9	136.8	135.8
Eating places	1,229	184.8	43.7	12.1	22,940	3,234.1	693.7	222.3
Drinking places	1,146	93.0	12.4	8.2	9,490	627.5	82.1	50.7
Other retail trade	1,811	200.3	12.7	14.8	39,316	4,236.7	366.9	356.4
Finance, insurance, and real estate	15,039	994.4	48.7	(151.0)	435,306	32,419.2	1,774.3	(3,597.3)
Finance	4,428	111.1	9.1	(10.8)	107,029	5,996.6	504.0	155.9
Security, commodity brokers, services	170	23.8	(b)	2.4	2,260	3,445.4	430.1	232.2
Holding, investment companies	4,243	84.4	2.2	(13.9)	102,817	2,375.5	44.4	(107.5)
Real estate	10,399	863.1	36.1	(142.4)	321,408	24,750.2	1,774.3	(3,597.3)
Operators, and leasors of buildings	8,796	756.5	28.5	(124.4)	261,083	20,875.7	504.0	155.9
Leasors, other than building	397	9.7	(b)	(0.1)	32,293	528.3	430.1	232.2
Real estate agents, brokers, and managers	763	56.9	6.0	(10.9)	15,988	1,095.1	44.4	(107.5)
Other real estate	443	40.0	(b)	(6.2)	12,044	2,251.1	1,111.7	(3,958.4)

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State	Rank order of population	Total resident population 1 July 1978 (thousands)	Land area (square miles)	Membership in U.S. House of Representatives based on 1970 census	Per capita personal income 1978	Per capita federal tax burden fiscal 1978	Per capita state and local tax collections fiscal 1977
Arizona	31	2,354	113,417	4	$7,374	$1,561	$ 827
Kansas	32	2,348	81,787	5	8,001	1,812	728
Arkansas	33	2,186	51,945	4	6,183	1,305	494
West Virginia	34	1,860	48,798	4	6,456	1,487	622
Nebraska	35	1,565	76,483	3	7,391	1,694	774
Utah	36	1,307	82,096	2	6,622	1,439	652
New Mexico	37	1,212	121,412	2	6,505	1,417	625
Maine	38	1,091	30,920	2	6,333	1,394	658
Rhode Island	39	935	1,049	2	7,526	1,748	793
Hawaii	40	897	6,429	2	8,380	1,955	974
Idaho	41	878	82,677	2	6,813	1,428	639
New Hampshire	42	871	9,027	2	7,277	1,710	618
Montana	43	785	145,587	2	7,051	1,547	766
District of Columbia	44	674	61	0	10,022	2,475	1,071
South Dakota	45	690	75,955	2	6,841	1,469	629
Nevada	46	660	109,889	1	9,032	2,142	892
North Dakota	47	652	69,273	1	7,478	1,612	682
Delaware	48	583	1,982	1	8,604	2,136	829
Vermont	49	487	9,267	1	6,541	1,361	810
Wyoming	50	424	97,203	1	9,096	2,043	988
Alaska	51	403	566,432	1	10,851	3,790	2,296

SOURCE: Column 2, Bureau of the Census, special release; columns 3 and 4, Bureau of the Census, Statistical Abstract of the United States: 1976, 97th ed. (Washington, D.C.: 1976), Tables 303 and 733; column 5, Bureau of Economic Analysis, special release; column 6, Tax Foundation, Inc., Monthly Tax Features, vol. 23, no. 2 (Washington, D.C.: 1978), Table 101; and column 7, Bureau of the Census, Governmental Finances in 1976-77, GF77, no. 5 (Washington, D.C.: November 1978), Table 25.

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PREFACE

Two new chapters have been introduced in this edition. Chapter XXVI is a collection of data pertaining to this state's travel industries. It is not planned to include this chapter in the 1981 edition. Some of the data will be preserved, however, in chapter XI, which will be titled "Outdoor Environment and Recreation."

Chapter XXVII groups tables that appeared in various chapters in previous editions. It is anticipated that new personal income projections will be available from the Bureau of Economic Analysis for inclusion in next year's projections chapter. Also, an effort will be made to develop job projections, by industry groupings, for regions within the state.

Of interest to history buffs are the comments on Harper Hospital, at the end of chapter III; the description of the state capitol in the introduction to chapter IX; and the list of pioneering automotive companies in the introduction to chapter XVI.

Because of many requests, tables showing monthly statistics have been increased. The list appears in the index under "monthly data."

There is more discussion in this edition than last. The analysis of income change has been updated (chapter VI). There also is an extensive narrative description of retail trade, travel, and energy usage. For the 1981 edition, it is planned to include an analysis of manufacturing and of the new data from the 1980 Census of Population, along with an update of the discussion in chapter VI.

Next year, major reductions are planned for chapters XXI and XXIII in order to make room for new material from the censuses of population, mining, construction, and manufacturing. Increasingly, each Abstract contains information that is not included in previous and subsequent editions.

Those who find this Abstract useful are advised to consult the Economic Report of the Governor, which also appears annually. It offers a good description of the state's economy as well as the most recent economic forecast.

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KEWEE-NAW
HOUGHTON
ONTONAGON
BARAGA
GOGEBIC
MARQUETTE
ALGER
LUCE
CHIPPEWA
IRON
SCHOOLCRAFT
MACKINAC
DICKINSON
DELTA
MENOMINEE
EMMET
CHEBOYGAN
PRESQUE ISLE
CHARLEVOIX
ANTRIM
OTSEGO
MONT-MORENCY
ALPENA
LEE-LANAU
BENZIE
GRAND TRAVERSE
KALKASKA
CRAWFORD
OSCODA
ALCONA
MANISTEE
WEXFORD
MISSAUKEE
ROS-COMMON
OGEMAW
IOSCO
MASON
LAKE
OSCEOLA
CLARE
GLADWIN
ARENAC
HURON
OCEANA
NEWAYGO
MECOSTA
ISABELLA
MIDLAND
BAY
TUSCOLA
SANILAC
MONTCALM
GRATIOT
SAGINAW
MUSKEGON
KENT
IONIA
CLINTON
SHIA-WASSEE
GENESEE
LAPEER
ST. CLAIR
OTTAWA
ALLEGAN
BARRY
EATON
INGHAM
LIVINGS-TON
OAKLAND
MACOMB
VAN BUREN
KALA-MAZOO
CALHOUN
JACKSON
WASHTENAW
WAYNE
BERRIEN
CASS
ST. JOSEPH
BRANCH
HILLSDALE
LENAWEE
MONROE

MICHIGAN

I. POPULATION

Between 1970 and 1979, according to the latest estimate from the Bureau of the Census, 349,000 more people emigrated from than immigrated to Michigan. That figure is 3.4 percent of the state's 1970 population. Michigan is tied with Pennsylvania for sixth place in a ranking of states according to (negative) net migration. Those with higher rates were New York (7.1 percent), Ohio (5.3 percent), Rhode Island (5.2 percent), Illinois (4.9 percent), and South Dakota (3.5 percent). The rate for the District of Columbia was -17.4 percent. Nevada experienced the highest rate of net immigration (33.8 percent), followed by Florida (27.2 percent), Arizona (26.1 percent), and Wyoming (24.2 percent). Since 1975, the exodus from Michigan has diminished somewhat. Between 1970 and 1975 the rate was 1.9 percent; between 1975 and 1979 it was 1.5 percent. Annual population estimates for Michigan and the United States are shown in Table I-1.

Table I-2 has the latest estimates of population for Michigan villages and cities. These were prepared by the Bureau of the Census on behalf of the Office of Revenue Sharing in Washington, D.C. They have not been reviewed by local authorities and will not be published by the Bureau of the Census as were previous ORS population data. Those interested will find 1977 population estimates for counties, incorporated places, and minor civil divisions in Michigan in Current Population Reports, Series P-25, Number 835, prepared by the Bureau of the Census for the ORS and published by the Superintendent of Documents in Washington, D.C.

About a year from now, final population counts will be available from the 1980 Census of Population and Housing, conducted in April. An expanded chapter I is planned for the 1981 edition of the Michigan Statistical Abstract, which will have the Census of Population count within each county for every city, village, and township for 1950, 1960, 1970, and 1980. It is envisaged that these very detailed figures will not appear in subsequent editions during this decade. Tables such as I-2, I-4, and I-5 will carry the intercensal figures. Topical tables, such as age and racial and household characteristics of the population, will be published as the data become available from the Bureau of the Census.

County intercensal population estimates (Table I-4) are prepared jointly by the Bureau of the Census and the Information Systems Section, Office of the Budget, Michigan Department of Management and Budget. This agency was designated by the governor to work with the Bureau of the Census in implementing and carrying out the Federal-State Cooperative Program.

The U.S. Department of Justice administers the immigration and naturalization laws of the nation and compiles such data as those shown in Tables I-7 and I-8.

Users of this edition of the Abstract are urged to consult chapters III, IV, and VII, which provide clues to population characteristics.

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TABLE I-1. INTERCENSAL ESTIMATES OF THE TOTAL RESIDENT AND CIVILIAN POPULATION OF MICHIGAN AND THE UNITED STATES: 1 JULY 1946-1979

(In thousands)

Year	Civilian population		Total population [a]	
	Michigan	United States [b]	Michigan	United States [b]
1946	5,859	138,385	5,874	140,054
1947	6,065	142,566	6,076	143,446
1948	6,206	145,168	6,213	146,093
1949	6,324	147,578	6,332	148,665
1950	6,397	150,790	6,407	151,868
1951	6,476	151,599	6,497	153,982
1952	6,627	153,892	6,650	156,393
1953	6,806	156,595	6,822	158,956
1954	7,053	159,695	7,066	161,884
1955	7,270	162,967	7,285	165,069
1956	7,452	166,055	7,467	168,088
1957	7,554	169,110	7,569	171,187
1958	7,652	172,226	7,667	174,149
1959	7,750	175,277	7,767	177,135
1960	7,818	178,136	7,834	179,975
1961	7,871	181,123	7,893	182,973
1962	7,909	183,644	7,933	185,738
1963	8,034	186,448	8,058	188,438
1964	8,164	189,085	8,187	191,085
1965	8,336	191,539	8,357	193,460
1966	8,492	193,345	8,512	195,501
1967	8,610	195,181	8,630	197,374
1968	8,677	197,026	8,696	199,312
1969	8,765	199,067	8,781	201,306
1970	8,880	201,722	8,895	203,810
1971	8,950	204,258	8,965	206,719
1972	9,000	206,461	9,015	208,234
1973	9,045	208,102	9,060	209,859
1974	9,081	209,683	9,094	211,389
1975	9,078	211,373	9,092	213,051
1976	9,086	213,011	9,100	214,680
1977	9,125	214,746	9,138	216,400
1978	9,170	216,600	9,181	218,228
1979	9,197	218,497	9,207	220,099

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, no. 72 (Washington, D.C.: 1953); no. 304 (1965); no. 460 (1971); no. 468 (1971); and no. 876 (1980).

a. Figures exclude members of the armed forces stationed abroad.

b. U.S. figures exclude Alaska and Hawaii prior to 1950.

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Addison (V)	Lenawee	488	575	595	675	13.4
Adrian (C)	Lenawee	18,393	20,347	20,382	20,046	- 1.6
Ahmeek (V)	Keweenaw	360	265	238	247	3.8
Akron (V)	Tuscola	431	503	525	579	10.5
Alanson (V)	Emmet	319	290	362	576	59.1
Albion (C)	Calhoun	10,406	12,749	12,112	13,347	10.2
Algonac (C)	St. Clair	2,639	3,190	3,684	4,706	27.7
Allegan (C)	Allegan	4,801	4,822	4,516	5,807	28.6
Allen (V)	Hillsdale	n.d.	325	385	389	1.0
Allen Park (C)	Wayne	12,329	37,494	40,747	36,081	-11.5
Alma (C)	Gratiot	8,341	8,978	9,611	9,969	3.7
Almont (V)	Lapeer	1,035	1,279	1,634	1,864	14.1
Alpena (C)	Alpena	13,135	14,682	13,805	15,403	11.6
Alpha (V)	Iron	378	317	282	295	4.6
Anchor Bay Grdns (U)	Macomb	1,127	1,830	2,272	n.a.	n.a.
Ann Arbor (C)	Washtenaw	48,521	67,340	100,035	105,213	5.2
Applegate (V)	Sanilac	244	252	301	390	29.6
Armada (V)	Macomb	961	1,111	1,352	1,750	29.4
Ashley (V)	Gratiot	449	448	521	523	.4
Athens (V)	Calhoun	768	966	996	986	- 1.0
Auburn (C)	Bay	869	1,497	1,919	2,191	14.2
Au Gres (C)	Arenac	442	584	564	761	34.9
Augusta (V)	Kalamazoo	898	972	1,025	1,055	2.9
Bad Axe (C)	Huron	2,973	2,998	2,999	3,342	11.4
Baldwin (V)	Lake	835	835	612	661	8.0

TABLE 1-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Bancroft (V)	Shiawassee	615	636	724	908	25.4
Bangor (C)	Van Buren	1,694	2,109	2,050	1,989	- 3.0
Baraga (V)	Baraga	942	991	1,116	1,152	3.2
Baroda (V)	Berrien	344	488	504	583	15.5
Barryton (V)	Mecosta	445	418	368	498	35.3
Barton Hills (V)	Washtenaw	n.d.	n.d.	390	442	13.3
Battle Creek (C)	Calhoun	48,666	44,169	38,931	41,328	6.2
Bay City (C)	Bay	52,523	53,604	49,449	45,972	- 7.0
Bayport (U)	Genesee	1,209	1,569	2,101	n.a.	n.a.
Bear Lake (V)	Manistee	364	323	376	465	23.7
Beaverton (C)	Gladwin	794	926	954	1,470	54.1
Beechwood (U)	Ottawa	1,567	2,323	2,714	n.a.	n.a.
Belding (C)	Ionia	4,436	4,887	5,121	5,644	10.2
Bellaire (V)	Antrim	693	689	897	1,021	13.8
Belleville (C)	Wayne	1,722	1,921	2,406	3,292	36.8
Bellevue (V)	Eaton	1,168	1,277	1,297	1,762	35.9
Benton Central (U)	Berrien	n.d.	n.d.	8,067	n.a.	n.a.
Benton Harbor (C)	Berrien	18,769	19,136	16,481	15,353	- 6.8
Benton South (U)	Berrien	n.d.	n.d.	4,496	n.a.	n.a.
Benzonia (V)	Benzie	407	407	412	494	19.9
Berkley (C)	Oakland	17,931	23,275	21,879[a]	18,902	-13.6
Berrien Springs (V)	Berrien	1,761	1,953	1,951	1,869	- 4.2
Bessemer (C)	Gogebic	3,509	3,304	2,805	2,685	- 4.3
Beulah (V)	Benzie	458	436	461	555	20.4
Beverly Hills (V)	Oakland	n.d.	8,633	13,598	11,749	-13.6

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Big Rapids (C)	Mecosta	6,736	8,686	11,995	15,075	25.7
Bingham Farms (V)	Oakland	n.d.	394	566	509	-10.1
Birch Run (V)	Saginaw	n.d.	844	932	1,037	11.3
Birmingham (C)	Oakland	15,467	25,525	26,170	23,800	- 9.1
Blissfield (V)	Lenawee	2,365	2,653	2,753	3,242	17.8
Bloomfield Hills (C)	Oakland	1,468	2,378	3,672	3,928	7.0
Bloomingdale (V)	Van Buren	465	471	496	485	- 2.2
Boyne City (C)	Charlevoix	3,028	2,797	2,969	3,497	17.8
Boyne Falls (V)	Charlevoix	236	260	347	340	- 2.0
Breckenridge (V)	Gratiot	985	1,131	1,257	1,376	9.4
Breedsville (V)	Van Buren	239	245	209	194	- 7.2
Bridgman (C)	Berrien	977	1,454	1,621	2,185	35.5
Brighton (C)	Livingston	1,861	2,282	2,457	3,764	53.2
Britton (V)	Lenawee	517	622	697	842	20.8
Bronson (C)	Branch	2,106	2,267	2,390	2,304	- 3.7
Brooklyn (V)	Jackson	862	986	1,112	1,335	20.1
Brown City (C)	Sanilac	878	993	1,142	1,311	14.8
Brownlee Park (U)	Calhoun	n.d.	3,307	2,985	n.a.	n.a.
Buchanan (C)	Berrien	5,224	5,341	4,645	4,823	3.8
Buckley (V)	Wexford	194	247	244	347	42.2
Bunny Run (U)	Oakland	n.d.	1,058	1,391	n.a.	n.a.
Burlington (V)	Calhoun	329	366	314	431	37.3
Burr Oak (V)	St. Joseph	814	867	873	900	3.1
Burton (C)	Genesee	n.d.	n.d.	32,540	35,033	7.7
Byron (V)	Shiawassee	439	542	655	932	42.3

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Cadillac (C)	Wexford	10,425	10,112	9,990	10,659	6.7
Caledonia (V)	Kent	619	739	716	830	15.9
Calumet (V)	Houghton	1,256	1,139	1,007	954	- 5.3
Camden (V)	Hillsdale	380	434	405	505	24.7
Capac (V)	St. Clair	1,104	1,235	1,279	1,460	14.9
Carleton (V)	Monroe	1,039	1,379	1,503	1,703	13.3
Caro (V)	Tuscola	3,464	3,534	4,028	4,564	13.3
Carrollton (U)	Saginaw	n.d.	n.d.	7,300	n.a.	n.a.
Carson City (C)	Montcalm	1,168	1,201	1,217	1,544	26.9
Carsonville (V)	Sanilac	487	502	621	658	6.0
Caseville (V)	Huron	482	659	607	945	55.7
Casnovia (V)	Kent & Muskegon	312	371	403	441	9.4
Caspian (C)	Iron	1,608	1,493	1,165	1,191	2.2
Cass City (V)	Tuscola	1,762	1,945	1,974	2,433	23.3
Cassopolis (V)	Cass	1,527	2,027	2,108	1,916	- 9.1
Cedar Springs (C)	Kent	1,378	1,768	1,807	2,459	36.1
Cement City (V)	Jackson & Lenawee	n.d.	471	531	641	20.7
Center Line (C)	Macomb	7,659	10,164	10,379	9,159	-11.8
Central Lake (V)	Antrim	692	692	741	826	11.5
Centreville (V)	St. Joseph	879	971	1,044	1,103	5.7
Charlevoix (C)	Charlevoix	2,695	2,751	3,519	3,649	3.7
Charlotte (C)	Eaton	6,606	7,657	8,244	9,907	20.2
Chatham (V)	Alger	n.d.	n.d.	246	310	26.0
Cheboygan (C)	Cheboygan	5,687	5,859	5,553	5,518	- .6
Chelsea (V)	Washtenaw	2,580	3,355	3,858	4,531	17.4

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960 AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Chesaning (V)	Saginaw	2,264	2,770	2,876	3,243	12.8
Clair Haven (U)	Macomb	n.d.	1,364	2,177	n.a.	n.a.
Clair Haven W. (U)	Macomb	n.d.	n.d.	1,367	n.a.	n.a.
Clare (C)	Clare	2,440	2,442	2,639	3,266	23.8
Clarkston (V)	Oakland	722	769	1,034	1,174	13.5
Clarksville (V)	Ionia	339	371	346	287	-17.1
Clawson (C)	Oakland	5,196	14,795	17,617	16,083	- 8.7
Clayton (V)	Lenawee	467	470	505	546	8.1
Clifford (V)	Lapeer	330	389	472	516	9.3
Climax (V)	Kalamazoo	524	587	594	941	58.4
Clinton (V)	Lenawee	1,344	1,481	1,677	2,171	29.5
Clio (C)	Genesee	1,963	2,212	2,357	2,608	10.6
Coldwater (C)	Branch	8,594	8,880	9,155[a]	10,289	12.3
Coleman (C)	Midland	1,024	1,264	1,295	1,707	31.8
Coloma (C)	Berrien	1,041	1,473	1,814	2,485	37.0
Colon (V)	St. Joseph	1,000	1,055	1,172	1,176	.3
Columbiaville (V)	Lapeer	789	878	935	1,319	41.1
Comstock (U)	Kalamazoo	n.d.	n.d.	5,003	n.a.	n.a.
Comstock Park (U)	Kent	n.d.	n.d.	5,766	n.a.	n.a.
Concord (V)	Jackson	730	990	983	1,111	13.0
Constantine (V)	St. Joseph	1,514	1,710	1,733	1,710	- 1.3
Coopersville (C)	Ottawa	1,371	1,584	2,129	2,426	14.0
Copemish (V)	Manistee	255	232	237	406	71.3
Copper City (V)	Houghton	336	293	252	184	-27.0
Corunna (C)	Shiawassee	2,358	2,764	2,829	3,004	6.2

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978 AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Croswell (C)	Sanilac	1,775	1,817	1,954	2,424	24.1
Crystal Falls (C)	Iron	2,316	2,203	2,000	2,201	10.1
Custer (V)	Mason	260	365	320	362	13.1
Cutlerville (U)	Kent	n.d.	n.d.	6,267	n.a.	n.a.
Daggett (V)	Menominee	341	296	366	372	1.6
Dansville (V)	Ingham	433	453	486	574	19.1
Davison (C)	Genesee	1,745	3,761	5,259	6,388	21.5
Dearborn (C)	Wayne	94,994	112,007	104,199	91,652	-12.0
Dearborn Heights (C)	Wayne	n.d.	n.d.	80,069	69,097	-13.7
Decatur (V)	Van Buren	1,664	1,827	1,764	1,716	- 2.7
Deckerville (V)	Sanilac	719	798	817	881	7.8
Deerfield (V)	Lenawee	725	866	834	865	3.7
De Tour (V)	Chippewa	611	669	494	415	-16.0
Detroit (C)	Wayne	1,849,568	1,670,144	1,514,063	1,257,879	-16.9
Detroit Beach (U)	Monroe	n.d.	1,571	2,053	n.a.	n.a.
De Witt (C)	Clinton	824	1,238	1,829	2,710	48.2
Dexter (V)	Washtenaw	1,307	1,702	1,729	1,843	6.6
Dimondale (V)	Eaton	774	866	970	1,419	46.3
Douglas (V)	Allegan	447	602	813	765	- 5.9
Dowagiac (C)	Cass	6,542	7,208	6,583	6,472	- 1.7
Drayton Plains (U)	Oakland	n.d.	n.d.	16,462	n.a.	n.a.
Dryden (V)	Lapeer	476	531	654	847	29.5
Dundee (V)	Monroe	1,975	2,377	2,472	2,786	12.7
Durand (C)	Shiawassee	3,194	3,312	3,678	4,348	18.2
Eagle (V)	Clinton	145	141	175	197	12.6

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
East Detroit (C)	Macomb	21,461	45,756	45,920	40,706	-11.4
East Grand Rapids (C)	Kent	6,403	10,924	12,565	12,836	2.2
East Jordan (C)	Charlevoix	1,779	1,919	2,041	2,268	11.1
East Kingsford (C)	Dickinson	n.d.	1,063	1,155	n.a.	n.a.
East Lake (V)	Manistee	376	436	512	524	2.3
East Lansing (C)	Ingham	20,325	30,198	47,540	50,164	5.5
East Tawas (C)	Iosco	2,040	2,462	2,372	2,992	26.1
Eastwood (U)	Kalamazoo	n.d.	n.d.	9,682	n.a.	n.a.
Eaton Rapids (C)	Eaton	3,509	4,052	4,494	5,615	24.9
Eau Claire (V)	Berrien	480	562	527	511	- 3.0
Ecorse (C)	Wayne	17,948	17,328	17,515	13,922	-20.5
Edmore (V)	Montcalm	971	1,234	1,149	1,096	- 4.6
Edwardsburg (V)	Cass	616	902	1,107	1,089	- 1.6
Elberta (V)	Benzie	850	552	542	550	1.5
Elk Rapids (V)	Antrim	889	1,015	1,249	1,591	27.4
Elkton (V)	Huron	854	1,014	973	1,162	19.4
Ellsworth (V)	Antrim	369	386	362	451	24.6
Elsie (V)	Clinton	911	933	988	1,093	10.6
Emmet (V)	St. Clair	230	283	297	390	31.3
Empire (V)	Leelanau	251	448	409	453	10.8
Escanaba (C)	Delta	15,170	15,391	15,368	14,466	- 5.9
Essexville (C)	Bay	3,167	4,590	4,990	5,782	15.9
Estral Beach (V)	Monroe	188	254	419	448	7.2
Evart (C)	Osceola	1,578	1,775	1,707	2,223	30.2
Fairgrove (V)	Tuscola	570	609	629	747	18.8

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Fair Plain (U)	Berrien	4,234	3,744	3,680	n.a.	n.a.
Farmington (C)	Oakland	2,325	6,881	10,329[a]	11,120	7.7
Farmington Hills (C)	Oakland	n.d.	n.d.	48,694	60,818	24.9
Farwell (V)	Clare	694	737	777	1,100	41.6
Fennville (C)	Allegan	639	705	811	899	10.9
Fenton (C)	Genesee	4,226	6,142	8,284	10,474	26.4
Ferndale (C)	Oakland	29,675	31,347	30,850	26,432	-14.3
Ferrysburg (C)	Ottawa	n.d.	n.d.	2,196	2,294	4.5
Fife Lake (V)	Grand Traverse	347	218	274	363	32.5
Flat Rock (C)	Wayne	1,931	4,696	5,643	6,580	16.6
Flint (C)	Genesee	163,143	196,940	193,317	162,707	-15.8
Flushing (C)	Genesee	2,226	3,761	7,190	8,422	17.1
Forestville (V)	Sanilac	124	121	110	157	42.7
Fountain (V)	Mason	247	194	156	245	57.1
Fowler (V)	Clinton	675	854	1,020	1,135	11.3
Fowlerville (V)	Livingston	1,466	1,674	1,978	2,626	32.8
Frankenmuth (C)	Saginaw	1,208	1,728	2,834	3,243	14.4
Frankfort (C)	Benzie	1,605	1,690	1,660	1,983	19.5
Franklin (V)	Oakland	n.d.	2,262	3,311	3,295	- .5
Fraser (C)	Macomb	1,379	7,027	11,868	14,067	18.5
Freeland (U)	Saginaw	n.d.	n.d.	1,303	n.a.	n.a.
Freeport (V)	Barry	452	495	501	684	36.5
Freesoil (V)	Mason	208	209	186	209	12.4
Fremont (C)	Newaygo	3,056	3,384	3,465	5,204	50.2
Fruitport (V)	Muskegon	638	1,037	1,409	1,409	0

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Gaastra (C)	Iron	575	582	479	443	- 7.5
Gagetown (V)	Tuscola	401	376	408	411	.7
Gaines (V)	Genesee	352	387	408	562	37.7
Galesburg (C)	Kalamazoo	1,200	1,410	1,355	2,078	53.4
Galien (V)	Berrien	610	750	691	647	- 6.4
Garden (V)	Delta	399	380	336	404	20.2
Garden City (C)	Wayne	9,012	38,017	41,864	37,852	- 9.6
Gaylord (C)	Otsego	2,271	2,568	3,012	3,833	27.3
Gibraltar (C)	Wayne	n.d.	2,196	3,842[a]	3,912	1.8
Gladstone (C)	Delta	4,831	5,267	5,237	4,846	- 7.5
Gladwin (C)	Gladwin	1,878	2,226	2,071	3,301	59.4
Gobles (C)	Van Buren	622	816	801	1,145	42.9
Goodrich (V)	Genesee	n.a.	701	774	1,159	49.7
Grand Beach (V)	Berrien	105	86	165	197	19.4
Grand Blanc (C)	Genesee	998	1,565	5,132	5,601	9.1
Grand Haven (C)	Ottawa	9,536	11,066	11,844	12,540	5.9
Grand Ledge (C)	Eaton	4,506	5,165	6,032	7,674	27.2
Grand Rapids (C)	Kent	176,515	177,313	197,649	183,917	- 6.9
Grandville (C)	Kent	2,022	7,975	10,764	12,524	16.4
Grant (C)	Newaygo	646	732	772	911	18.0
Grass Lake (V)	Jackson	878	1,037	1,061	1,239	16.8
Grayling (C)	Crawford	2,066	2,015	2,143	1,856	-13.4
Greenville (C)	Montcalm	6,668	7,440	7,493	8,707	16.2
Grosse Ile (U)	Wayne	n.d.	n.d.	8,306[a]	n.a.	n.a.
Grosse Pointe (C)	Wayne	6,283	6,631	6,637	5,971	-10.0

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Grosse Pt. Farms (C)	Wayne	9,410	12,172	11,701	10,218	-12.7
Grosse Pt. Park (C)	Wayne	13,075	15,457	15,641	13,754	-12.1
Grosse Pt. Shrs (V)	Wayne & Macomb	1,032	2,301	3,042	3,211	5.6
Grosse Pt. Woods (C)	Wayne	10,381	18,580	21,878	19,755	- 9.7
Gwinn (U)	Marquette	n.d.	1,009	1,054	n.a.	n.a.
Hamtramck (C)	Wayne	43,355	34,137	26,783	22,289	-16.8
Hancock (C)	Houghton	5,223	5,022	4,820	4,763	- 1.2
Hanover (V)	Jackson	377	449	513	571	11.3
Harbor Beach (C)	Huron	2,349	2,282	2,134	2,065	- 3.2
Harbor Springs (C)	Emmet	1,626	1,433	1,662	1,984	19.4
Harper Woods (C)	Wayne	9,148	19,995	20,186	16,491	-18.3
Harrietta (V)	Wexford	152	119	132	117	-11.4
Harrison (C)	Clare	884	1,072	1,460	2,679	83.5
Harrisville (C)	Alcona	485	487	541	619	14.4
Hart (C)	Oceana	2,172	1,990	2,139	2,055	- 3.9
Hartford (C)	Van Buren	1,838	2,305	2,508	2,583	3.0
Hastings (C)	Barry	6,096	6,375	6,501	7,580	16.6
Hazel Park (C)	Oakland	17,770	25,631	23,784	20,596	-13.4
Hersey (V)	Osceola	239	246	276	474	71.7
Hesperia (V)	Newaygo & Oceana	760	822	877	1,125	28.3
Highland Park (C)	Wayne	46,393	38,063	35,444	28,882	-18.5
Hillman (V)	Montmorency	442	445	366	451	23.0
Hillsdale (C)	Hillsdale	7,297	7,629	7,728	8,578	11.0
Holland (C)	Allegan & Ottawa	15,858	24,777	26,479	28,838	8.9
Holly (V)	Oakland	2,663	3,269	4,355	5,292	21.5

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978: AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Holt (U)	Ingham	n.d.	4,818	6,980	n.a.	n.a.
Homer (V)	Calhoun	1,301	1,629	1,617	2,189	35.4
Honor (V)	Benzie	269	278	282	397	40.8
Hopkins (V)	Allegan	531	556	566	684	20.8
Houghton (C)	Houghton	3,829	3,393	6,067	6,849	12.9
Houghton Lake Hts. (U)	Roscommon	n.d.	1,195	1,252	n.a.	n.a.
Howard City (V)	Montcalm	791	1,004	1,060	1,395	31.6
Howell (C)	Livingston	4,353	4,861	5,224	8,281	58.5
Hubbardston (V)	Clinton & Ionia	335	381	403	412	2.2
Hubbell (U)	Houghton	1,690	1,429	1,251	n.a.	n.a.
Hudson (C)	Lenawee	2,773	2,546	2,618	3,092	18.1
Hudsonville (C)	Ottawa	1,101	2,649	3,523	4,445	26.2
Huntington Woods (C)	Oakland	4,949	8,746	8,536	7,522	-11.9
Imlay City (C)	Lapeer	1,654	1,968	1,980	2,008	1.4
Inkster (C)	Wayne	16,728	39,097	38,595	35,009	- 9.4
Ionia (C)	Ionia	6,412	6,754	6,361	6,580	3.4
Iron Mountain (C)	Dickinson	9,679	9,299	8,702	8,622	- .9
Iron River (C)	Iron	4,048	3,754	2,684	2,623	- 2.3
Ironwood (C)	Gogebic	11,466	10,265	8,711	7,969	- 8.5
Ishpeming (C)	Marquette	8,962	8,857	8,245	8,375	1.6
Ithaca (C)	Gratiot	2,377	2,611	2,749	3,350	21.9
Jackson (C)	Jackson	51,088	50,720	45,484	43,057	- 5.3
Jenison (U)	Ottawa	n.d.	n.d.	11,266	n.a.	n.a.
Jonesville (V)	Hillsdale	1,594	1,896	2,081	2,379	14.3
Kalamazoo (C)	Kalamazoo	57,704	82,089	85,555	78,279	- 8.5

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Kaleva (V)	Manistee	346	348	377	451	19.6
Kalkaska (V)	Kalkaska	1,250	1,321	1,475	2,374	60.9
Keego Harbor (C)	Oakland	n.d.	2,761	3,092	2,901	- 6.2
Kent City (V)	Kent	506	617	686	902	31.5
Kentwood (C)	Kent	n.d.	n.d.	20,310	29,436	44.9
Kincheloe (U)	Chippewa	n.d.	n.d.	6,331	n.a.	n.a.
Kinde (V)	Huron	571	624	618	661	7.0
Kingsford (C)	Dickinson	5,038	5,084	5,276	5,406	2.5
Kingsley (V)	Grand Traverse	425	586	632	663	4.9
Kingston (V)	Tuscola	371	456	464	528	13.8
K I Sawyer (U)	Marquette	n.d.	n.d.	8,224[a]	n.a.	n.a.
Laingsburg (C)	Shiawassee	942	1,057	1,159	1,966	69.6
Lake Angelus (V)	Oakland	123	231	573	604	5.4
Lake Ann (V)	Benzie	99	106	172	272	58.1
Lake City (C)	Missaukee	719	718	704	1,153	63.8
Lake Linden (V)	Houghton	1,462	1,314	1,214	1,293	6.5
Lake Mich. Beach (U)	Berrien	n.d.	1,092	1,201	n.a.	n.a.
Lake Odessa (V)	Ionia	1,596	1,806	1,924	2,117	10.0
Lake Orion (V)	Oakland	2,385	2,698	2,921	3,553	21.6
Lake Orion Hts. (U)	Oakland	1,075	1,918	2,552	n.a.	n.a.
Lakeview (U)	Calhoun	n.d.	10,384	11,391	n.a.	n.a.
Lakeview (V)	Montcalm	975	1,126	1,118	1,206	7.9
Lakewood Club (V)	Muskegon	n.d.	n.d.	590	608	3.1
Lambertville (U)	Monroe	n.a.	1,168	5,721	n.a.	n.a.
L'Anse (V)	Baraga	2,376	2,397	2,538	2,655	4.6

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Lansing (C)	Clinton-Eaton Ingham	92,129	107,807	131,403	125,229	- 4.7
Lapeer (C)	Lapeer	6,143	6,160	6,314	5,619	-11.0
Lapeer Heights (U)	Genesee	n.d.	n.d.	7,130	n.a.	n.a.
Lathrup Village (C)	Oakland	n.d.	3,556	4,676[a]	4,866	4.1
Laurium (V)	Houghton	3,211	3,058	2,868	2,877	.3
Lawrence (V)	Van Buren	679	773	790	807	2.2
Lawton (V)	Van Buren	1,206	1,402	1,358	1,611	18.6
Lennon (V)	Genesee & Shiawassee	n.d.	n.d.	624	669	7.2
Leonard (V)	Oakland	391	359	378	655	73.3
Le Roy (V)	Osceola	243	267	248	287	15.7
Leslie (C)	Ingham	1,543	1,807	1,894	2,538	34.0
Level Pk-Oak Pk (U)	Calhoun	1,364	3,017	3,080	n.a.	n.a.
Lexington (V)	Sanilac	594	722	834	1,008	20.7
Lincoln (V)	Alcona	409	441	371	507	36.7
Lincoln Park (C)	Wayne	29,310	53,933	52,984	46,754	-11.8
Linden (V)	Genesee	933	1,146	1,546	2,269	46.8
Litchfield (C)	Hillsdale	882	993	1,167	1,477	26.6
Livonia (C)	Wayne	17,534	66,702	110,109	105,054	- 4.6
Lowell (C)	Kent	2,191	2,545	3,068	3,736	21.8
Ludington (C)	Mason	9,506	9,421	9,021	10,355	14.8
Luna Pier (C)	Monroe	n.d.	n.d.	1,418	1,543	8.8
Luther (V)	Lake	314	325	320	385	20.3
Lyons (V)	Ionia	683	687	758	880	16.1
McBain (C)	Missaukee	506	551	520	701	34.8
McBride (V)	Montcalm	223	265	272	243	-10.7

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Mackinac Island (C)	Mackinac	572	942	517	636	23.0
Mackinaw City (V)	Cheboygan-Emmet	970	934	810	860	6.2
Madison Heights (C)	Oakland	n.d.	33,343	38,599	35,786	- 7.3
Mancelona (V)	Antrim	1,000	1,141	1,255	1,505	19.9
Manchester (V)	Washtenaw	1,388	1,568	1,650	2,015	22.1
Manistee (C)	Manistee	8,642	8,324	7,723	8,096	4.8
Manistique (C)	Schoolcraft	5,086	4,875	4,324	4,196	- 3.0
Manitou Bch-Devils Lake (U)	Lenawee	1,273	1,544	1,892	n.a.	n.a.
Manton (C)	Wexford	1,085	1,050	1,107	1,437	29.8
Maple Rapids (V)	Clinton	645	683	683	593	-13.2
Marcellus (V)	Cass	1,014	1,073	1,139	1,149	.9
Marine City (C)	St. Clair	4,270	4,404	4,567	5,331	16.7
Marion (V)	Osceola	879	898	891	985	10.5
Marlette (V)	Sanilac	1,489	1,640	1,706	1,929	13.1
Marquette (C)	Marquette	17,202	19,824	21,967	24,905	13.4
Marshall (C)	Calhoun	5,777	6,736	7,253	7,449	2.7
Martin (V)	Allegan	407	483	502	529	5.4
Marysville (C)	St. Clair	2,534	4,065	5,610	7,026	25.2
Mason (C)	Ingham	3,514	4,522	5,468	6,451	18.0
Mattawan (V)	Van Buren	n.d.	n.d.	1,569	2,485	58.4
Maybee (V)	Monroe	428	459	485	588	21.2
Mayville (V)	Tuscola	888	896	872	1,104	26.6
Mecosta (V)	Mecosta	305	303	396	610	54.0
Melvin (V)	Sanilac	204	196	202	254	25.7
Melvindale (C)	Wayne	9,483	13,089	13,862	11,659	-15.9

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Memphis (C)	Macomb-St. Clr	800	996	1,121	1,114	- .6
Mendon (V)	St. Joseph	844	867	949	1,060	11.7
Menominee (C)	Menominee	11,151	11,289	10,748	10,253	- 4.6
Merrill (V)	Saginaw	809	963	961	1,059	10.0
Mesick (V)	Wexford	359	304	376	460	22.3
Metamora (V)	Lapeer	390	452	468	760	62.4
Michiana (V)	Berrien	102	135	233	218	- 6.4
Middleville (V)	Barry	1,047	1,196	1,855	2,208	18.4
Midland (C)	Bay-Midland	14,285	27,779	35,176	37,597	6.9
Milan (C)	Monroe & Washtenaw	2,768	3,616	3,997	4,429	10.8
Milford (V)	Oakland	1,924	4,323	4,699	7,884	67.8
Millersburg (V)	Presque Isle	281	280	200	359	79.5
Millington (V)	Tuscola	1,043	1,159	1,099	1,626	48.0
Minden (V)	Sanilac	359	369	327	367	12.2
Mineral Hills (V)	Iron	333	311	234	261	11.5
Monroe (C)	Monroe	21,467	22,968	23,894	24,782	3.7
Montague (C)	Muskegon	1,530	2,366	2,396	2,787	16.3
Montgomery (V)	Hillsdale	397	362	404	506	25.2
Montrose (V)	Genesee	937	1,466	1,789	2,257	26.2
Morenci (C)	Lenawee	1,983	2,053	2,132	2,182	2.3
Morley (V)	Mecosta	413	445	481	519	7.9
Morrice (V)	Shiawassee	501	530	734	852	16.1
Mount Clemens (C)	Macomb	17,027	21,016	20,476	23,830	16.4
Mount Morris (C)	Genesee	2,890	3,484	3,778	4,112	8.8
Mount Pleasant (C)	Isabella	11,393	14,875	20,504	24,521	19.6

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Muir (V)	Ionia	466	610	617	671	8.8
Mulliken (V)	Eaton	411	484	454	499	9.9
Munising (C)	Alger	4,339	4,228	3,677	3,492	- 5.0
Muskegon (C)	Muskegon	48,429	46,485	44,631	43,237	- 3.1
Muskegon Hts (C)	Muskegon	18,828	19,552	17,304	15,954	- 7.8
Nashville (V)	Barry	1,374	1,525	1,558	2,360	51.5
Negaunee (C)	Marquette	6,472	6,126	5,248	5,568	6.1
Newaygo (C)	Newaygo	1,385	1,447	1,381	1,879	36.1
New Baltimore (C)	Macomb	2,043	3,159	4,132	5,395	30.6
Newberry (V)	Luce	2,802	2,612	2,334	2,456	5.2
New Buffalo (C)	Berrien	1,565	2,128	2,784	2,813	1.0
New Era (V)	Oceana	247	403	466	624	33.9
New Haven (V)	Macomb	1,082	1,198	1,855	2,367	27.6
New Lathrop (V)	Shiawassee	459	510	596	706	18.5
Niles (C)	Berrien	13,145	13,842	12,988	13,440	3.5
North Adams (V)	Hillsdale	499	494	574	622	8.4
North Branch (V)	Lapeer	832	901	932	1,032	10.7
North Muskegon (C)	Muskegon	2,424	3,855	4,243	4,711	11.0
Northport (V)	Leelanau	582	530	594	615	3.5
Northville (C)	Oakland-Wayne	3,240	3,967	5,400	7,472	38.4
Norton Shores (C)	Muskegon	n.d.	n.d.	22,271	21,160	- 5.0
Norway (C)	Dickinson	3,258	3,171	3,033	3,157	4.1
Novi (C)	Oakland	n.d.	6,390	9,668	17,693	83.0
Oakley (V)	Saginaw	333	417	418	445	6.5
Oak Park (C)	Oakland	5,276	36,632	36,762	31,820	13.4

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Okemos (U)	Ingham	n.d.	n.d.	7,770	n.a.	n.a.
Olivet (C)	Eaton	887	1,185	1,629	1,934	18.7
Omer (C)	Arenac	321	322	366	491	34.2
Onaway (C)	Presque Isle	1,421	1,388	1,262	1,347	6.7
Onekama (V)	Manistee	435	469	638	700	9.7
Onsted (V)	Lenawee	486	526	555	871	56.9
Ontonagon (V)	Ontonagon	2,307	2,358	2,432	2,124	-12.7
Orchard Lk Villg (C)	Oakland	696	1,127	1,487	1,708	14.9
Ortonville (V)	Oakland	702	771	983	1,701	73.0
Oscoda-Au Sable (U)	Iosco	n.d.	n.d.	3,475	n.a.	n.a.
Otisville (V)	Genesee	592	701	724	946	30.7
Otsego (C)	Allegan	3,990	4,142	3,957	4,393	11.0
Otter Lake (V)	Lapeer-Genesee	523	562	551	599	8.7
Ovid (V)	Clinton	1,410	1,505	1,650	1,806	9.5
Owendale (V)	Huron	307	298	312	368	17.9
Owosso (C)	Shiawassee	15,948	17,006	17,179	18,136	5.6
Oxford (V)	Oakland	2,305	2,357	2,536	3,799	49.8
Parchment (C)	Kalamazoo	1,179	1,565	2,027	2,202	8.6
Parma (V)	Jackson	680	770	880	966	9.8
Patterson Grdns (U)	Monroe	1,548	1,747	2,169	n.a.	n.a.
Paw Paw (V)	Van Buren	2,382	2,970	3,160	3,180	.6
Paw Paw Lake (U)	Berrien	1,625	3,518	3,726	n.a.	n.a.
Pearl Beach (U)	St. Clair	n.d.	1,224	1,744	n.a.	n.a.
Peck (V)	Sanilac	471	548	580	608	4.8
Pellston (V)	Emmet	442	429	469	647	38.0

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Pentwater (V)	Oceana	1,097	1,030	993	1,276	28.5
Perrinton (V)	Gratiot	383	424	489	547	11.9
Perry (C)	Shiawassee	1,203	1,370	1,531	2,046	33.6
Petersburg (C)	Monroe	1,001	1,018	1,227	1,560	27.1
Petoskey (C)	Emmet	6,468	6,138	6,342	6,055	- 4.5
Pewamo (V)	Ionia	432	415	498	536	7.6
Pierson (V)	Montcalm	169	219	193	223	15.5
Pigeon (V)	Huron	1,015	1,191	1,174	1,170	- .3
Pinckney (V)	Livingston	695	732	921	1,434	55.7
Pinconning (C)	Bay	1,223	1,329	1,320	1,750	32.6
Plainwell (C)	Allegan	2,767	3,125	3,195	4,686	46.7
Pleasant Ridge (C)	Oakland	3,594	3,807	3,989	3,329	-16.5
Plymouth (C)	Wayne	6,637	8,766	11,758	10,219	-13.1
Pontiac (C)	Oakland	73,681	82,233	85,279	78,501	- 7.9
Portage (C)	Kalamazoo	n.d.	n.d.	33,590	36,974	10.1
Port Austin (V)	Huron	724	706	883	1,027	16.3
Port Hope (V)	Huron	353	349	377	403	6.9
Port Huron (C)	St. Clair	35,725	36,084	35,794	34,662	- 3.2
Portland (C)	Ionia	2,807	3,330	3,817	4,976	30.4
Port Sanilac (V)	Sanilac	247	361	493	656	33.1
Posen (V)	Presque Isle	274	341	339	297	-12.4
Potterville (C)	Eaton	624	1,028	1,280	1,665	30.1
Powers (V)	Menominee	510	415	560	470	-16.1
Prescott (V)	Ogemaw	281	308	306	499	63.1
Quakertown (U)	Oakland	n.a.	482	837	n.a.	n.a.

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Quakertown N. (U)	Oakland	n.d.	n.d.	7,101	n.a.	n.a.
Quincy (V)	Branch	1,527	1,602	1,540	2,130	38.3
Ramsay (U)	Gogebic	n.d.	1,158	1,068	n.a.	n.a.
Ravenna (V)	Muskegon	551	801	1,048	1,103	5.2
Reading (C)	Hillsdale	1,125	1,128	1,125	1,372	22.0
Reed City (C)	Osceola	2,241	2,184	2,286	2,306	.9
Reese (V)	Tuscola	632	711	1,050	1,269	20.9
Richland (V)	Kalamazoo	389	511	728	927	27.3
Richmond (C)	Macomb	2,025	2,667	3,234	2,004	-38.0
River Rouge (C)	Wayne	20,549	18,147	15,947	12,748	-20.1
Riverview (C)	Wayne	1,432	7,237	11,342	13,301	17.3
Rochester (C)	Oakland	4,279	5,431	7,054	9,511	34.8
Rockford (C)	Kent	1,937	2,074	2,428	3,434	41.4
Rockwood (C)	Wayne	1,044	2,026	3,225[a]	3,617	12.2
Rogers City (C)	Presque Isle	3,873	4,722	4,275	4,470	4.6
Romeo (V)	Macomb	2,985	3,327	4,012	4,821	20.2
Romulus (C)	Wayne	n.d.	n.d.	22,879	24,832	8.5
Roosevelt Park (C)	Muskegon	1,254	2,578	4,176	3,785	- 9.4
Roscommon (V)	Roscommon	877	867	810	1,237	52.7
Rosebush (V)	Isabella	n.d.	n.d.	439	368	-16.2
Rose City (C)	Ogemaw	446	435	530	674	27.2
Roseville (C)	Macomb	15,816	50,195	60,529	55,819	- 7.8
Rothbury (V)	Oceana	n.d.	n.d.	394	517	31.2
Royal Oak (C)	Oakland	46,898	80,612	86,238[a]	74,358	-13.8
Saginaw (C)	Saginaw	92,918	98,265	91,849	80,704	-12.1

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
St. Charles (V)	Saginaw	1,469	1,959	2,046	2,319	13.3
St. Clair (C)	St. Clair	4,098	4,538	4,770	4,941	3.6
St. Clair Shrs (C)	Macomb	19,823	76,657	88,093	83,877	- 4.8
St. Ignace (C)	Mackinac	2,946	3,334	2,892	2,864	- 1.0
St. Johns (C)	Clinton	4,954	5,629	6,672	8,458	26.8
St. Joseph (C)	Berrien	10,223	11,755	11,042	10,718	- 2.9
St. Louis (C)	Gratiot	3,347	3,808	4,101	4,198	2.4
Saline (C)	Washtenaw	1,533	2,334	4,811	7,018	45.9
Sand Lake (V)	Kent	394	394	380	478	25.8
Sandusky (C)	Sanilac	1,819	2,066	2,071	2,365	14.2
Sanford (V)	Midland	n.d.	n.d.	818	1,056	29.1
Saranac (V)	Ionia	885	1,081	1,223	1,389	13.6
Saugatuck (V)	Allegan	770	927	1,022	958	- 6.3
Sault Ste. Marie (C)	Chippewa	17,912	18,722	15,136	15,156	.1
Schoolcraft (V)	Kalamazoo	1,078	1,205	1,277	1,930	51.1
Scottville (C)	Mason	1,142	1,245	1,202	1,385	15.2
Sebewaing (V)	Huron	1,911	2,026	2,053	2,099	2.2
Selfridge Base (U)	Macomb	n.d.	n.d.	1,614	n.a.	n.a.
Selfridge-Capehart (U)	Macomb	n.d.	n.d.	1,694	n.a.	n.a.
Shelby (V)	Oceana	1,500	1,603	1,703	1,914	12.4
Sheperd (V)	Isabella	899	1,293	1,416	1,856	31.1
Sheridan (V)	Montcalm	535	606	653	713	9.2
Sherwood (V)	Branch	362	356	400	437	9.3
Shoreham (V)	Berrien	391	443	666	718	7.8
Shorewood Hills-Flower Hills (U)	Berrien	n.d.	1,330	1,629	n.a.	n.a.

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change 1970-1978
		1950	1960	1970	1978	
Southfield (C)	Oakland	n.d.	31,501	69,285	75,002	8.3
Southgate (C)	Wayne	n.d.	29,404	33,909	32,745	3.4
South Haven (C)	Van Buren	5,629	6,149	6,471	5,919	- 8.5
South Lyon (C)	Oakland	1,312	1,753	2,675	4,996	86.8
South Monroe (U)	Monroe	2,275	2,919	3,012	n.a.	n.a.
South Range (V)	Houghton	715	760	898	965	7.5
South Rockwood (V)	Monroe	n.d.	1,337	1,477	1,741	17.9
Sparlingville (U)	St. Clair	1,393	1,877	1,845	n.a.	n.a.
Sparta (V)	Kent	2,327	2,749	3,094	3,269	5.7
Spring Arbor (U)	Jackson	n.d.	n.d.	1,832	n.a.	n.a.
Springfield (C)	Calhoun	n.d.	4,605	3,994	5,607	40.4
Springfld Place (U)	Calhoun	n.d.	5,136	4,831	n.a.	n.a.
Spring Lake (V)	Ottawa	1,824	2,063	3,034	2,891	- 4.7
Springport (V)	Jackson	598	693	723	926	28.1
Stambaugh (C)	Iron	1,969	1,876	1,458	1,489	2.1
Standish (C)	Arenac	1,186	1,214	1,184	1,590	34.3
Stanton (C)	Montcalm	1,123	1,139	1,089	1,531	40.6
Stanwood (V)	Mecosta	189	205	241	338	40.2
Stephenson (C)	Menominee	791	820	800	754	- 5.7
Sterling (V)	Arenac	444	470	507	593	17.0
Sterling Heights (C)	Macomb	n.d.	n.d.	61,365	103,083	68.0
Stevensville (V)	Berrien	480	697	1,107	1,249	12.8
Stockbridge (V)	Ingham	1,098	1,097	1,190	1,364	14.6
Stony Point (U)	Monroe	n.d.	n.d.	1,370	n.a.	n.a.
Sturgis (C)	St. Joseph	7,786	8,915	9,295	9,212	- .9

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Sunfield (V)	Eaton	400	626	497	694	39.6
Sunrise Heights (U)	Calhoun	1,094	1,569	1,626	n.a.	n.a.
Suttons Bay (V)	Leelanau	485	421	522	577	10.5
Swartz Creek (C)	Genesee	n.d.	3,006	4,928	7,089	43.9
Sylvan Lake (C)	Oakland	1,165	2,004	2,219	2,009	- 9.5
Tawas City (C)	Iosco	1,441	1,810	1,666	2,263	35.8
Taylor (C)	Wayne	n.d.	n.d.	70,020	78,177	11.6
Tecumseh (C)	Lenawee	4,020	7,045	7,120	8,234	15.6
Takonsha (V)	Calhoun	647	744	739	841	13.8
Thompsonville (V)	Benzie	313	243	312	320	2.6
Three Oaks (V)	Berrien	1,572	1,763	1,750	1,764	.8
Three Rivers (C)	St. Joseph	6,785	7,092	7,355	6,456	-12.2
Traverse City (C)	Gr. Traverse	16,974	18,432	18,048	17,944	- .6
Trenton (C)	Wayne	6,222	18,439	24,127	25,002	3.6
Troy (C)	Oakland	n.d.	19,402	39,419	66,478	68.6
Turner (V)	Arenac	193	206	182	190	4.4
Tustin (V)	Osceola	229	248	230	459	99.6
Twining (V)	Arenac	196	199	198	198	0
Ubly (V)	Huron	743	819	899	1,013	12.7
Union City (V)	Branch & Calhoun	1,564	1,669	1,740	1,634	- 6.1
Unionville (v)	Tuscola	531	629	647	607	- 6.2
Utica (C)	Macomb	1,196	1,454	3,504	4,210	20.1
Vandalia (V)	Cass	360	357	427	454	6.3
Vanderbilt (V)	Otsego	410	509	522	542	3.8
Vassar (C)	Tuscola	2,530	2,680	2,802	3,296	17.6

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Vermontville (V)	Eaton	707	768	857	1,076	25.6
Vernon (V)	Shiawassee	678	754	818	1,088	33.0
Verona Park (U)	Calhoun	1,342	1,884	2,107	n.a.	n.a.
Vicksburg (V)	Kalamazoo	2,171	2,224	2,139	2,740	28.1
Wakefield (C)	Gogebic	3,344	3,231	2,757	2,720	- 1.3
Waldron (V)	Hillsdale	427	454	564	558	- 1.1
Walker (C)	Kent	n.d.	n.d.	11,492	13,923	21.2
Walkerville (V)	Oceana	233	261	319	310	- 2.8
Walled Lake (C)	Oakland	n.d.	3,550	3,759	4,444	18.2
Warren (C)	Macomb	727	89,246	179,260	167,237	- 6.7
Washington (U)	Macomb	n.d.	n.d.	1,563	n.a.	n.a.
Watervliet (C)	Berrien	1,327	1,818	2,059	1,963	- 4.7
Wayland (C)	Allegan	1,591	2,019	2,054	2,210	7.6
Wayne (C)	Wayne	9,409	16,034	21,054	19,365	- 8.0
Webberville (V)	Ingham	600	664	1,251	1,763	40.9
Wells (U)	Delta	n.d.	n.d.	1,085	n.a.	n.a.
West Branch (C)	Ogemaw	2,098	2,025	1,912	2,806	46.8
Westland (C)	Wayne	n.d.	n.d.	86,749	86,791	0
Westphalia (V)	Clinton	459	560	806	849	5.3
Westwood (U)	Kalamazoo	n.d.	n.d.	9,143	n.a.	n.a.
White Cloud (C)	Newaygo	977	1,001	1,044	1,166	11.7
Whitehall (C)	Muskegon	1,819	2,590	3,017	3,436	13.9
White Lk-Seven Harbrs	Oakland	1,385	2,748	4,504	n.a.	n.a.
White Pigeon (V)	St. Joseph	1,113	1,399	1,455	1,636	12.4
White Pine (U)	Ontonagon	n.d.	n.d.	1,218	n.a.	n.a.

TABLE I-2. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES AND UNINCORPORATED PLACES HAVING 1,000 INHABITANTS OR MORE: CENSUS 1950, 1960, AND 1970; INTERCENSAL, 1 JULY 1978; AND PERCENTAGE CHANGE: 1970-1978 (cont.)

Place	County	Population				Percentage change
		1950	1960	1970	1978	1970-1978
Whitmore Lake (U)	Livingston	n.d.	n.d.	2,763	n.a.	n.a.
Whittemore (C)	Iosco	452	460	460	597	29.8
Williamston (C)	Ingham	2,051	2,214	2,600	3,425	31.7
Wixom (C)	Oakland	n.d.	1,531	2,010	5,346	166.0
Wolf Lake (U)	Muskegon	1,591	2,525	2,258	n.a.	n.a.
Wolverine (V)	Cheboygan	318	292	303	377	24.4
Wolverine Lake (V)	Oakland	n.d.	2,404	4,301	5,593	30.0
Wood Creek Farms	Oakland	n.d.	684	1,090	n.a.	n.a.
Woodhaven (C)	Wayne	n.d.	n.a.	3,566[a]	9,163	157.0
Woodland (V)	Barry	410	374	473	565	19.5
Woodland Beach (U)	Monroe	n.d.	1,944	2,249	n.a.	n.a.
Wurtsmith (U)	Iosco	n.d.	n.a.	6,932	n.a.	n.a.
Wyandotte (C)	Wayne	36,846	43,519	41,061	35,404	-13.8
Wyoming (C)	Kent	n.d.	45,829	56,560	58,129	2.8
Yale (C)	St. Clair	1,641	1,621	1,505	1,688	12.2
Ypsilanti (C)	Washtenaw	18,302	20,957	29,538	27,618	- 6.5
Zeeland (C)	Ottawa	3,075	3,702	4,734	5,966	26.0
Zilwaukee (C)	Saginaw	n.d.	n.d.	2,072	2,039	- 1.6

SOURCE: Bureau of the Census, special release (1978 data); U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Final Report PC(1)-A24, Table 6 (1960 and 1970 data); and U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Final Report PC(1)-24A, Table 8 (1950 data).

a. Corrected for errors found after tabulations were completed.

C: City.

U: Unincorporated.

V: Village.

n.d.: not defined.

n.a.: not available.

TABLE I-3. MICHIGAN'S FASTEST AND SLOWEST GROWING CITIES AND VILLAGES: 1 APRIL 1970-1 JULY 1978

City	Annual rate of % change	City	Annual rate of % change	City	Annual rate of % change
		Fastest growing			
Wixom	13.0	Metamora	6.2	Schoolcraft	5.3
Woodhaven	12.5	Kalkaska	6.1	Fremont	5.2
Tustin	9.0	Gladwin	6.0	Oxford	5.2
South Lyon	8.1	Alanson	6.0	Goodrich	5.2
AuGres	8.1	Howell	5.9	DeWitt	5.0
Harrison	7.9	Climax	5.9	Millington	5.0
Novi	7.8	Mattawan	5.9	Lindon	4.9
Millersburg	7.6	Lake Ann	5.9	West Branch	4.9
Leonard	7.1	Fountaine	5.8	Plainwell	4.9
Ortonville	7.1	Onsted	5.8	Dimondale	4.9
Hersey	7.0	Pinckney	5.7	Saline	4.8
Copemish	7.0	Caseville	5.7	Kentwood	4.7
Laingsburg	6.8	Beaverton	5.6	Swartz Creek	4.7
Troy	6.8	Mecosta	5.5	Gobles	4.6
Sterling Heights	6.7	Galesburg	5.5	Forestville	4.5
Milford	6.7	Brighton	5.5	Byron	4.5
Lake City	6.4	Roscommon	5.4	Buckley	4.5
Prescott	6.3	Nashville	5.3	Farwell	4.4
		Slowest growing			
Copper City	- 3.9	Berkley	- 1.8	Harrietta	- 1.5
Ecorse	- 2.8	Beverly Hills	- 1.8	East Detroit	- 1.5
River Rouge	- 2.8	Oak Park	- 1.8	Lapeer	- 1.4
Highland Park	- 2.5	Hazel Park	- 1.8	McBride	- 1.4
Harper Woods	- 2.5	Grayling	- 1.8	Bingham Farm	- 1.3
Clarksville	- 2.3	Maple Rapids	- 1.8	Grosse Pointe	- 1.3
Detroit	- 2.3	Plymouth	- 1.7	Grosse Pte. Woods	- 1.3
Hamtramck	- 2.3	Grosse Pte. Farm	- 1.7	Garden City	- 1.3
Pleasant Ridge	- 2.2	Ontonagon	- 1.7	Sylvan City	- 1.2
Rosebush	- 2.2	Posen	- 1.6	Roosevelt Park	- 1.2
Powers	- 2.2	Three Rivers	- 1.6	Inkster	- 1.2
Detour	- 2.2	Saginaw	- 1.6	Cassopolis	- 1.2
Melvindale	- 2.1	Grosse Pte. Park	- 1.6	Birmingham	- 1.2
Flint	- 2.1	Dearborn	- 1.6	Clawson	- 1.1
Ferndale	- 1.9	Huntington Wood	- 1.6	South Haven	- 1.1
Wyandotte	- 1.8	Lincoln Park	- 1.6	Ironwood	- 1.1
Royal Oak	- 1.8	Center Line	- 1.6	Kalamazoo	- 1.1
Dearborn Heights	- 1.8	Allen Park	- 1.5	Wayne	- 1.0

SOURCE: Bureau of the Census, special release.

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970, AND ESTIMATE FOR 1 JULY 1979

County	1920	1930	1940	1950	1960	1970	1979
Alcona	5,912	4,989	5,463	5,856	6,352	7,113	9,200
Alger	9,983	9,327	10,167	10,007	9,250	8,568	9,900
Allegan	37,540	38,974	41,839	47,493	57,729	66,575	75,800
Alpena	17,869	18,574	20,766	22,189	28,556	30,708	33,300
Antrim	11,543	9,979	10,964	10,721	10,373	12,612	16,700
Arenac	9,460	8,007	9,233	9,644	9,860	11,149	14,000
Baraga	7,662	9,168	9,356	8,037	7,151	7,789	8,700
Barry	21,383	20,928	22,613	26,183	31,738	38,166	43,200
Bay	69,548	69,474	74,981	88,461	107,042	117,339	120,100
Benzie	6,947	6,587	7,800	8,306	7,834	8,593	11,000
Berrien	62,653	80,066	89,117	115,702	149,865	163,875	166,700
Branch	23,997	23,950	25,845	30,202	34,903	37,906	38,800
Calhoun	72,918	87,043	94,206	120,813	138,858	141,963	139,300
Cass	20,395	20,888	21,910	28,185	36,932	43,312	45,700
Charlevoix	15,788	11,981	13,031	13,475	13,421	16,541	19,600
Cheboygan	13,991	11,502	13,644	13,731	14,550	16,573	20,300
Chippewa	24,818	25,047	27,807	29,206	32,655	32,412	29,300
Clare	8,250	7,032	9,163	10,253	11,647	16,695	23,900
Clinton	23,110	24,174	26,671	31,195	37,969	48,492	55,500
Crawford	4,049	3,097	3,765	4,151	4,971	6,482	9,400
Delta	30,909	32,280	34,037	32,913	34,298	35,924	39,600
Dickinson	19,941	29,941	28,731	24,844	23,917	23,753	25,600
Eaton	29,377	31,728	34,124	40,023	49,684	68,892	83,900
Emmet	15,639	15,109	15,791	16,534	15,904	18,331	22,100
Genesee	125,668	211,641	227,944	270,963	374,313	445,589	451,200

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970, AND ESTIMATE FOR 1 JULY 1979 (cont.)

County	1920	1930	1940	1950	1960	1970	1979
Gladwin	8,827	7,424	9,385	9,451	10,769	13,471	19,200
Gogebic	33,225	31,577	31,797	27,053	24,370	20,676	19,600
Grand Traverse	19,518	20,011	23,390	28,598	33,490	39,175	50,300
Gratiot	33,914	30,252	32,205	33,429	37,012	39,246	39,700
Hillsdale	28,161	27,417	29,092	31,916	34,742	37,171	40,100
Houghton	71,930	52,851	47,631	39,771	35,654	34,652	36,100
Huron	32,786	31,132	32,584	33,149	34,006	34,083	35,800
Ingham	81,554	116,587	130,616	172,941	211,296	261,039	270,700
Ionia	33,087	35,093	35,710	38,158	43,132	45,848	49,700
Iosco	8,199	7,517	8,560	10,906	16,505	24,905	30,100
Iron	22,107	20,805	20,243	17,692	17,184	13,813	14,700
Isabella	22,610	21,126	25,982	28,964	35,348	44,594	51,900
Jackson	72,539	92,304	93,108	197,925	131,994	143,274	149,000
Kalamazoo	71,225	91,368	100,085	126,707	169,712	201,550	207,800
Kalkaska	5,577	3,799	5,159	4,597	4,382	5,272	12,900
Kent	183,041	240,511	246,338	288,292	363,187	411,044	441,600
Keweenaw	6,322	5,076	4,004	2,918	2,417	2,264	2,300
Lake	4,437	4,066	4,798	5,257	5,338	5,661	7,200
Lapeer	25,782	28,348	32,116	35,794	41,926	52,361	69,200
Leelanau	9,061	8,206	8,436	8,647	9,321	10,872	14,100
Lenawee	47,767	49,849	53,110	64,629	77,789	81,951	86,900
Livingston	17,522	19,274	20,863	26,725	38,233	58,967	99,200
Luce	6,149	6,528	7,423	8,147	7,827	6,789	7,000
Mackinac	8,026	8,783	9,438	9,287	10,853	9,660	10,800
Macomb	38,103	77,146	107,638	184,961	405,804	625,309	706,700

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970, AND ESTIMATE FOR 1 JULY 1979 (cont.)

County	1920	1930	1940	1950	1960	1970	1979
Manistee	20,899	17,409	18,450	18,524	19,042	20,094	22,000
Marquette	45,786	44,076	47,144	47,654	56,154	64,686	75,600
Mason	19,831	18,756	19,378	20,474	21,929	22,612	24,900
Mecosta	17,765	15,738	16,902	18,968	21,051	27,992	35,000
Menominee	23,778	23,652	24,883	25,299	24,685	24,587	27,300
Midland	17,237	19,150	27,094	35,662	51,450	63,769	71,100
Missaukee	9,004	6,992	8,034	7,458	6,784	7,126	10,000
Monroe	37,115	52,485	58,620	75,666	101,120	118,479	131,600
Montcalm	30,441	27,471	28,581	31,013	35,795	38,660	46,100
Montmorency	4,089	2,814	3,840	4,125	4,424	5,247	7,700
Muskegon	62,362	84,630	94,501	121,545	149,943	157,426	158,800
Newaygo	17,378	17,029	19,286	21,567	24,160	27,992	33,600
Oakland	90,050	211,251	254,068	396,001	690,259	907,871	1,020,100
Oceana	15,601	13,805	14,812	16,105	16,547	17,984	21,100
Ogemaw	7,786	6,595	8,720	9,345	9,680	11,903	16,200
Ontonagon	12,428	11,114	11,359	10,282	10,584	10,548	10,000
Osceola	15,221	12,806	13,309	13,797	13,595	14,838	18,100
Oscoda	1,783	1,728	2,543	3,134	3,447	4,726	7,200
Otsego	6,043	5,554	5,827	6,435	7,545	10,422	15,100
Ottawa	47,660	54,858	59,660	73,751	98,719	128,181	154,600
Presque Isle	12,131	11,330	12,250	11,996	13,117	12,836	14,200
Roscommon	2,032	2,055	3,668	5,916	7,200	9,892	16,200
Saginaw	100,286	120,717	130,468	153,515	190,752	219,743	226,600
St. Clair	58,009	67,563	76,222	91,599	107,201	120,175	134,200
St. Joseph	26,818	30,618	31,749	35,071	42,332	47,392	52,100

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1920, 1930, 1940, 1950, 1960, AND 1970, AND ESTIMATE FOR 1 JULY 1979 (cont.)

County	1920	1930	1940	1950	1960	1970	1979
Sanilac	31,237	27,751	30,114	30,837	32,314	35,181	39,800
Schoolcraft	9,997	8,451	9,524	9,148	8,953	8,226	8,700
Shiawassee	35,924	39,517	41,207	45,967	53,446	63,075	70,900
Tuscola	33,320	32,934	35,694	38,258	43,305	48,603	55,700
Van Buren	30,715	32,637	35,111	39,184	48,395	56,173	62,500
Washtenaw	49,520	65,530	80,810	134,606	172,440	234,103	253,900
Wayne	1,177,645	1,888,946	2,015,623	2,435,235	2,666,297	2,669,604	2,358,500
Wexford	18,297	16,827	17,976	18,628	18,466	19,717	22,500
TOTAL	3,668,412	4,842,325	5,256,106	6,371,766	7,823,194	8,879,862	9,207,000

SOURCES: Bureau of the Census, U.S. Census of Population: 1940, Number of Inhabitants, Michigan (Washington, D.C.: 1941), Table 5, U.S. Census of Population: 1950, Number of Inhabitants, (Washington, D.C.: 1951), Table 5, U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Table 6, and U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Table 9; and Michigan Department of Management and Budget, Information System Division, special release.

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1979

County	1960 to 1970				1970 to 1 July 1979			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Alcona	761	1,026	782	517	2,100	1,000	1,100	2,200
Alger	-682	1,534	1,098	-1,118	1,300	1,200	1,000	1,100
Allegan	8,846	12,689	5,740	1,897	9,300	11,300	5,600	3,500
Alpena	2,152	6,675	2,693	-1,830	2,600	4,500	2,500	600
Antrim	2,239	2,054	1,505	1,690	4,000	2,100	1,500	3,500
Arenac	1,289	1,892	1,269	666	2,800	1,900	1,300	2,300
Baraga	638	1,494	990	134	900	1,200	900	600
Barry	6,428	6,661	3,272	3,039	5,000	5,800	3,300	2,500
Bay	10,297	24,815	9,767	-4,751	2,700	17,800	9,000	-6,100
Benzie	759	1,534	1,053	278	2,400	1,300	1,100	2,200
Berrien	14,010	35,887	15,181	-6,696	2,700	27,100	14,200	-10,200
Branch	3,003	6,350	3,705	358	900	5,500	3,500	- 1,000
Calhoun	3,105	29,382	13,098	-13,179	-2,700	21,000	12,100	-11,500
Cass	6,380	6,935	3,975	3,420	2,300	6,500	3,700	- 400
Charlevoix	3,120	3,073	1,809	1,856	3,100	2,600	1,700	2,200
Cheboygan	2,023	3,129	1,686	580	3,800	2,800	1,800	2,700
Chippewa	-243	9,331	3,037	-6,537	-3,100	6,000	2,700	-6,400
Clare	5,048	2,667	1,692	4,073	7,200	2,600	2,200	6,700
Clinton	10,523	9,719	3,356	4,160	7,000	7,500	3,000	2,500
Crawford	1,511	1,177	636	970	2,900	1,100	800	2,600
Delta	1,626	6,683	3,778	-1,279	3,600	5,500	3,800	1,900
Dickinson	-164	4,024	2,894	-1,294	1,800	3,000	2,900	1,700
Eaton	19,208	11,370	4,691	12,529	15,000	10,400	4,700	9,400
Emmet	2,427	3,419	2,001	1,009	3,700	2,900	1,900	2,800
Genesee	70,028	98,739	30,380	1,669	5,700	71,900	30,400	-35,900

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1979 (cont.)

County	1960 to 1970				1970 to 1 July 1979			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Gladwin	2,702	2,171	1,298	1,829	5,800	2,200	1,600	5,200
Gogebic	-3,694	3,262	3,274	-3,682	-1,100	2,400	2,800	- 600
Grand Traverse	5,685	6,790	3,398	2,293	11,200	6,700	3,600	8,000
Gratiot	2,234	8,882	3,844	-2,804	400	6,200	3,300	-2,500
Hillsdale	2,429	7,022	3,715	-878	2,900	5,700	3,400	600
Houghton	-1,002	5,961	5,126	-1,837	1,400	4,700	4,400	1,200
Huron	77	7,491	3,876	-3,538	1,700	5,200	3,800	400
Ingham	49,743	53,584	16,852	13,011	9,700	41,000	15,300	-15,900
Ionia	2,716	9,273	4,403	-2,154	3,900	7,700	3,900	(c)
Iosco	8,400	6,253	1,876	4,023	5,100	5,100	2,400	2,400
Iron	-3,371	2,133	2,312	-3,192	900	1,400	2,000	1,500
Isabella	9,246	7,970	2,894	4,170	7,300	6,600	2,800	3,400
Jackson	11,280	27,765	12,804	-3,681	5,700	20,900	11,800	-3,400
Kalamazoo	31,838	37,175	14,291	8,954	6,200	27,700	12,900	-8,600
Kalkaska	890	898	696	688	7,500	1,300	800	7,000
Kent	47,857	84,359	33,901	-2,601	30,600	64,300	32,100	-1,600
Keweenaw	-153	355	408	-100	(c)	200	300	100
Lake	323	870	963	416	1,600	900	1,000	1,700
Lapeer	10,391	9,783	3,946	4,554	16,800	9,500	4,100	11,400
Leelanau	1,551	1,683	1,088	956	3,200	1,500	1,100	2,900
Lenawee	3,820	15,657	7,583	-4,254	5,000	13,600	6,700	-1,900
Livingston	20,734	9,192	3,797	15,339	40,200	10,400	4,600	34,400
Luce	-1,038	1,177	703	-1,512	200	900	700	- 51
Mackinac	-1,193	2,258	1,056	-2,395	1,100	1,300	1,100	900
Macomb	219,505	125,043	28,368	122,830	80,500	89,200	36,700	28,000

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1979 (cont.)

County	1960 to 1970				1970 to 1 July 1979			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Manistee	1,052	3,822	2,511	- 259	1,600	2,700	2,400	1,300
Marquette	8,532	13,912	5,717	337	10,900	11,700	5,000	4,200
Mason	683	3,872	2,647	-542	2,300	3,200	2,400	1,600
Mecosta	6,941	4,710	2,304	4,535	7,000	4,300	2,200	5,000
Menominee	-98	4,240	2,850	-1,488	2,700	3,300	2,700	2,100
Midland	12,319	13,274	3,337	2,382	7,300	10,300	3,700	700
Missaukee	342	1,281	821	-118	2,900	1,300	800	2,400
Monroe	17,359	24,050	8,578	1,887	12,400	18,500	8,200	2,200
Montcalm	3,865	7,931	4,234	168	6,400	7,000	4,100	3,600
Montmorency	823	734	596	685	2,400	900	800	2,300
Muskegon	7,483	34,063	12,878	-13,702	1,400	23,700	12,600	-9,700
Newaygo	3,832	5,323	2,774	1,283	5,600	4,600	2,900	3,900
Oakland	217,612	161,590	50,009	106,031	112,300	126,200	60,100	46,100
Oceana	1,437	3,362	1,938	13	3,100	3,200	1,900	1,800
Ogemaw	2,223	1,772	1,318	1,769	4,300	1,900	1,700	4,100
Ontonagon	-36	2,003	1,271	-768	- 500	1,500	1,100	- 900
Osceola	1,243	2,768	1,678	153	3,300	2,600	1,700	2,300
Oscoda[d]	1,279	735	510	1,054	2,500	700	700	2,500
Otsego	2,877	1,967	832	1,742	4,700	2,000	900	3,600
Ottawa	29,462	24,141	8,216	13,537	26,500	21,200	8,500	13,800
Presque Isle	-281	2,637	1,334	-1,584	1,300	1,900	1,200	700
Roscommon	2,692	1,181	1,143	2,654	6,300	1,500	1,700	6,500
Saginaw	28,991	48,032	17,070	-1,971	6,900	36,200	16,500	-12,800
St. Clair	12,974	22,928	11,399	1,445	14,900	19,300	11,400	7,000
St. Joseph	5,060	8,987	4,927	1,000	4,700	8,200	4,600	1,100

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1960 TO 1 JULY 1979 (cont.)

County	1960 to 1970				1970 to 1 July 1979			
	Population change[a]	Births[b]	Deaths	Net migration	Population change[a]	Births[b]	Deaths	Net migration
Sanilac	2,575	6,769	4,033	- 161	4,600	5,600	3,800	2,800
Schoolcraft	-727	1,669	1,069	-1,327	500	1,200	1,000	300
Shiawassee	9,629	13,439	5,321	1,511	7,800	10,800	4,800	1,800
Tuscola	5,298	9,593	4,678	383	7,100	8,100	4,200	3,100
Van Buren	7,778	10,538	6,058	3,298	6,300	9,500	5,500	2,400
Washtenaw	61,663	42,116	11,850	31,397	19,800	34,700	12,100	-2,800
Wayne	454	537,201	260,295	-276,452	-311,900	376,400	231,300	-457,000
Wexford	1,251	3,780	2,277	-252	2,800	3,300	2,100	1,600
TOTAL	1,051,889	1,753,686	729,033	27,236	325,000	1,329,000	705,000	-298,000

SOURCE: Bureau of the Census, Current Population Reports (Washington, D.C.: 1977), Series P-25, No. 461, and Michigan Department of Management and Budget, Information System Division, special release.

a. Not corrected for errors found after tabulations were completed.

b. Corrected for underregistration.

c. Less than 50 persons or less than 0.05 percent.

d. The population of Oscoda County, as counted in the special census on 1 January 1977 was 6,035. The estimates shown here have been adjusted to reflect this count.

TABLE I-6. RESIDENT POPULATION OF MICHIGAN AND THE UNITED STATES, BY AGE GROUP: CENSUS 1940, 1950, 1960, AND 1970; AND 1 JULY 1976, 1977, 1978, AND 1979 ESTIMATE

(In thousands)

Year	Resident population	Under 5 years	5 to 17 years	18 to 44 years	45 to 64 years	65 years and over	14 years and over	18 years and over	21 years and over
				Michigan					
1940	5,256	431	1,168	2,263	1,063	331	4,037	3,657	3,374
1950	6,372	704	1,209	2,606	1,303	462	4,718	4,370	4,107
1960	7,823	969	1,990	2,721	1,505	638	5,349	4,864	4,580
1970	8,875	805	2,448	3,118	1,755	749	6,359	5,622	5,146
1976	9,113	669	2,245	3,582	1,783	833	6,951	6,198	5,634
1977	9,148	654	2,199	3,668	1,778	850	7,036	6,296	5,728
1978	9,189	649	2,151	3,751	1,771	867	7,120	6,389	5,828
1979	9,207	651	2,086	3,826	1,758	887	7,180	6,470	5,916
				United States					
1940[a]	131,669	10,542	29,745	56,279	26,084	9,019	101,103	91,382	83,997
1950	151,326	16,243	30,724	61,340	30,724	12,295	112,802	104,358	97,771
1960	179,323	20,321	43,881	62,503	36,057	16,560	126,276	115,121	108,124
1970	203,235	17,163	52,526	71,738	41,836	19,972	149,398	133,546	122,722
1976	214,669	15,343	49,853	82,829	43,698	22,942	166,365	149,474	136,839
1977	216,383	15,241	49,010	84,840	43,786	23,507	168,914	152,133	139,361
1978	218,059	15,361	48,015	86,783	43,845	24,054	171,319	154,682	141,930
1979	220,099	15,649	46,922	88,968	43,903	24,658	173,804	157,529	144,721

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, No. 875 (Washington, D.C. 1980); Bureau of the Census, U.S. Census of Population: 1960, vol. 1 Characteristics of the Population, Part 1, U.S. Summary (Washington, D.C.: 1964), Table 46 (1950 U.S. data) and General Population Characteristics, Michigan (Washington, D.C.: 1961), Final Report PC (1)-24B, Table 16 (1950 Michigan data); and similar census documents for earlier years.

a. Excludes Alaska and Hawaii.

TABLE I-7. PERMANENT RESIDENT ALIENS WHO REPORTED UNDER THE ALIEN ADDRESS PROGRAM IN MICHIGAN AND THE UNITED STATES, BY SELECTED NATIONALITY: YEAR ENDED 30 SEPTEMBER 1977 AND 1978

Area[a]	Michigan		United States	
	1977	1978	1977	1978
Canada	28,112	26,303	305,475	293,328
United Kingdom	11,055	10,225	287,320	276,497
Germany	7,300	6,688	162,764	153,306
Italy	6,835	6,449	196,761	181,937
Poland	6,340	5,915	79,291	75,789
Mexico	5,872	5,690	938,972	942,092
Iraq	4,885	n.a.	10,584	n.a.
Yugoslavia	4,450	n.a.	38,669	n.a.
India	4,204	4,553	95,557	98,148
Philippines	4,033	3,606	203,971	204,417
Korea	3,188	3,217	130,492	140,206
West Indies	2,701	n.a.	578,130	n.a.
Lebanon	2,641	n.a.	15,731	n.a.
Greece	2,384	2,050	68,288	57,353
Netherlands	1,865	n.a.	35,072	n.a.
China & Taiwan	1,711	1,651	121,312	121,224
Jordan	1,348	n.a.	11,382	n.a.
U.S.S.R.	1,267	n.a.	30,019	n.a.
Vietnam	1,171	n.a.	55,409	n.a.
Cuba	1,151	1,063	311,188	295,053
All other	22,804	58,112	774,919	2,141,130
TOTAL	125,317	135,522	4,451,306	4,980,480

SOURCE: Immigration and Naturalization Service, Annual Report, 1977 and 1978 (Washington, D.C.: annually), Tables 35 (1977) and 8 (1978).

NOTE: Countries or areas listed are those with 1,000 or more permanent resident alien addresses in Michigan in 1977.

a. Country of birth or origin.

n.a.: not available.

II. HOUSING

The latest U.S. Census of Housing was conducted on 1 April 1970 in conjunction with the U.S. Census of Population. Previous to 1 April, the Bureau of the Census purchased a list of U.S. residential addresses from a commercial specialist, and off-duty postmen were employed to update and correct it. Every known household in the United States then received a questionnaire with the request that it be completed on 1 April. Eighty percent of the households were sent a short version; the other 20 percent received forms with additional questions according to whether they were part of a 15 percent or 5 percent sample. Census statistics for Tables II-1, II-3, and II-4 were collected from all occupied housing units insofar as was possible.

Group quarters, which house five or more persons not related to the person in charge, are not included in the housing statistics. A housing unit is defined as "a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters." The latter are those in which the occupants do not live and eat with any other persons in the structure and which have either (1) direct access from the outside of the building or through a common hall or (2) complete kitchen facilities for the exclusive use of the occupants.

"Mobile homes or trailers, tents, boats, or railroad cars are not enumerated if vacant, used only for business, or used for vacations."

"Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents, i.e., persons who consider the hotel as their usual place of residence or have no usual place of residence elsewhere."

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TABLE II-1. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY ROOM SIZE OF UNIT: URBAN AND RURAL, BY RACE AND TENURE OF INHABITANTS: CENSUS 1940, 1950, 1960, 1970, AND SPRING 1976

Item	1940	1950	1960	1970	1976
Owner occupied					2,264,000[a]
Urban	438,376	800,618	1,190,245	1,414,423	n.a.
White	428,543[b]	765,583	1,112,748[b]	1,266,192	n.a.
Negro	9,833[b]	34,566	77,497[b]	143,014	n.a.
Rural	335,379	408,357	475,358	560,125	n.a.
White	332,836[b]	405,098	470,644[b]	553,531	n.a.
Negro	2,543[b]	2,733	4,694[b]	5,096	n.a.
Renter occupied					716,000[a]
Urban	486,537	474,519	478,844	574,067	n.a.
White	449,522[b]	417,514	376,247[b]	440,726	n.a.
Negro	37,015[b]	56,047	102,597[b]	127,432	n.a.
Rural	135,722	107,208	94,632	104,444	n.a.
White	134,110[b]	105,726	92,248[b]	101,736	n.a.
Negro	1,612[b]	1,054	2,384[b]	1,883	n.a.
Rooms					
1 room	30,416	29,721	32,755	30,619	n.a.
2 rooms	63,495	76,366	55,520	56,425	n.a.
3 rooms	122,169	170,896	155,995	189,383	n.a.
4 rooms	172,144	305,174	352,078	425,856	n.a.
5 rooms	338,648	454,648	674,297	785,664	n.a.
6 rooms	295,188	364,385	509,185	613,550	n.a.
7 rooms	163,158	184,049	253,466	298,317	n.a.
8 rooms or more	197,891	178,591	205,783	253,245	n.a.
TOTAL	1,396,014[d]	1,790,702[d]	2,239,079	2,653,059	3,029,000

SOURCES: Bureau of the Census, Sixteenth Census of the United States: 1940, Housing, vol. 2, General Characteristics, Part 3: Iowa-Montana (Washington, D.C.: 1943), Tables 2 and 8; Bureau of the Census, U.S. Census of Housing: 1950, vol. 1, General Characteristics, chapter 22, Michigan (Washington, D.C.: 1952), Tables 2 and 9; Bureau of the Census, U.S. Census of Housing: 1960, vol. 1, States and Small Areas, Michigan (Washington, D.C.: 1962), Final Report HC(1)-24, Tables 2 and 3; Bureau of the Census, U.S. Census of Housing: 1970, General Housing Characteristics, Michigan (Washington, D.C.: 1971), Final Report HC(1)-A24, Tables 2 and 3; and Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-60, No. 108 (Washington, D.C.: 1977), Table 22.

a. Only totals available.

b. Includes other minority races.

c. Includes 12,905 units for which number of rooms was not reported.

d. Includes 26,872 units for which number of rooms was not reported.

n.a.: not available.

TABLE II-2. ESTIMATES OF THE NUMBER OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: CENSUS 1970 AND 1 JULY 1976, 1977, AND 1978

Item	1970	1976	1977	1978
Husband-wife households				
Michigan	n.a.	2,016,000	2,023,000	2,015,000
United States	n.a.	47,556,000	47,758,000	47,631,000
Total				
Michigan	2,653,059	2,985,000	3,033,000	3,102,000
United States	63,449,747	73,297,000	74,588,000	76,473,000

SOURCE: Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, no. 710 (Washington, D.C.: 1977), Table 1, no. 725 (Washington, D.C.: 1978), Table 1; and no. 807 (Washington, D.C.: 1979), Table 1.

n.a.: not available.

TABLE II-3. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1950, 1960, 1970, AND 1975

County	Occupied in				1970 Occupied by	
	1950	1960	1970	1975	Owner	Renter
Alcona	1,733	1,939	2,394	2,724	2,143	251
Alger	2,755	2,623	2,595	2,724	2,049	546
Allegan	13,949	16,363	19,494	22,151	16,073	3,421
Alpena	6,117	7,944	8,771	9,598	7,261	1,510
Antrim	3,120	3,109	3,928	4,660	3,391	537
Arenac	2,750	2,928	3,407	3,758	2,938	469
Baraga	2,264	2,060	2,327	2,895	1,885	487
Barry	7,904	9,439	11,480	13,326	9,736	1,744
Bay	24,809	30,062	34,571	37,640	28,101	6,470
Benzie	2,382	2,413	2,796	3,173	2,336	460
Berrien	34,577	44,412	50,758	54,778	37,301	13,457
Branch	8,829	9,852	11,208	12,685	8,794	2,414
Calhoun	34,510	41,010	44,422	46,537	34,215	10,207
Cass	8,642	10,774	13,357	15,405	10,912	2,445
Charlevoix	3,996	3,989	5,002	5,904	4,118	884
Cheboygan	3,859	4,122	4,944	5,746	4,090	854
Chippewa	7,994	8,956	9,296	9,804	5,832	3,464
Clare	2,948	3,485	5,345	6,918	4,620	725
Clinton	8,700	10,328	13,605	15,939	11,579	2,026
Crawford	1,225	1,436	1,976	2,327	1,604	372
Delta	9,359	9,914	10,816	11,825	8,445	2,371
Dickinson	7,566	7,488	7,855	8,359	6,587	1,268
Eaton	11,891	14,181	19,878	24,339	15,971	3,907
Emmet	4,800	4,696	5,499	6,399	4,330	1,169
Genesee	78,286	105,188	129,747	142,833	100,489	29,258
Gladwin	2,653	3,105	4,211	5,074	3,743	468
Gogebic	8,076	7,820	7,129	7,109	5,681	1,448
Grand Traverse	7,468	9,065	11,429	13,756	8,937	2,492
Gratiot	9,626	10,532	11,332	12,280	8,867	2,465
Hillsdale	9,658	10,276	11,408	12,398	9,112	2,296
Houghton	11,837	10,825	11,062	11,510	8,181	2,281
Huron	9,047	9,522	10,325	11,231	8,550	1,775
Ingham	49,613	60,608	77,042	85,026	49,585	27,457
Ionia	10,582	11,506	12,809	14,161	10,349	2,460
Iosco	3,349	4,859	7,327	9,520	4,756	2,571
Iron	5,305	5,334	4,930	4,871	4,082	848
Isabella	7,550	8,777	11,190	13,472	7,778	3,412
Jackson	30,814	37,520	42,261	47,627	33,361	8,900
Kalamazoo	36,664	48,139	59,406	67,565	42,466	16,940
Kalkaska	1,338	1,346	1,745	2,054	1,507	238
Kent	85,430	105,765	123,826	136,108	93,646	30,180
Keweenaw	921	805	786	751	644	142
Lake	1,738	1,807	1,981	2,189	1,713	268
Lapeer	8,911	10,771	13,835	17,189	11,150	2,685
Leelanau	2,380	2,664	3,526	3,805	2,757	569

TABLE II-3. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY: CENSUS 1950, 1960, 1970, AND 1975 (cont.)

County	Occupied in				1970 Occupied by	
	1950	1960	1970	1975	Owner	Renter
Lenawee	18,735	21,982	24,239	16,903	18,891	5,348
Livingston	7,744	10,770	16,886	22,056	13,736	3,150
Luce	1,638	1,662	1,746	2,245	1,426	320
Mackinac	2,593	2,920	2,943	3,012	2,345	598
Macomb	49,465	106,995	171,578	228,798	142,601	28,977
Manistee	,668	5,876	6,471	7,018	5,294	1,177
Marquette	1 ,328	15,586	18,184	21,355	11,897	6,287
Mason	6,219	6,767	7,275	7,747	5,902	1,373
Mecosta	5,368	5,739	7,791	9,001	5,519	2,272
Menominee	7,049	7,159	7,646	8,134	6,310	1,336
Midland	9,668	13,612	18,013	21,113	14,749	3,264
Missaukee	2,030	1,916	2,216	2,488	1,934	282
Monroe	20,899	27,573	33,202	38,280	26,342	6,860
Montcalm	9,474	10,866	12,395	13,523	10,206	2,189
Montmorency	1,182	1,370	1,782	2,110	1,548	234
Muskegon	34,963	42,426	47,031	50,046	37,035	9,996
Newaygo	6,227	7,054	8,446	9,670	7,170	1,276
Oakland	109,239	188,986	264,566	328,221	207,135	57,431
Oceana	4,696	4,828	5,439	6,012	4,508	931
Ogemaw	2,670	2,883	3,846	4,465	3,204	642
Ontonagon	2,985	3,138	3,230	3,464	2,670	560
Osceola	3,889	3,992	4,602	4,937	3,840	762
Oscoda	909	1,061	1,596	2,102	1,394	202
Otsego	1,707	2,131	3,025	3,692	2,555	470
Ottawa	21,152	27,386	35,934	43,256	29,781	6,153
Presque Isle	3,114	3,476	3,833	4,054	3,326	507
Roscommon	1,918	2,396	3,587	4,363	3,081	506
Saginaw	42,913	52,870	63,143	70,398	49,095	14,048
St. Clair	26,508	31,268	36,416	40,206	28,875	7,541
St. Joseph	10,742	13,013	15,201	16,529	12,046	3,155
Sanilac	8,940	9,458	10,551	11,684	8,776	1,775
Schoolcraft	2,548	2,577	2,565	2,668	2,067	498
Shiawassee	13,513	15,432	18,581	20,500	15,042	3,539
Tuscola	10,561	11,903	13,709	15,458	11,446	2,263
Van Buren	12,431	14,657	17,262	19,429	13,392	3,870
Washtenaw	34,502	47,272	68,578	79,372	39,189	29,389
Wayne	670,128	784,668	830,441	873,465	563,531	266,910
Wexford	5,444	5,545	6,234	6,707	5,025	1,209

SOURCE: Michigan State Housing Development Authority, Estimates of Physically Inadequate and Dilapidated Housing Units in Michigan, 1975 (Lansing: 1975), pp. 105-270; Bureau of the Census, U.S. Census of Housing: 1970, General Housing Characteristics, Michigan (Washington, D.C.: 1971), Final Report HC(1)-A24, Table 29; Bureau of the Census, U.S. Census of Housing: 1960, vol. 1, State and Small Areas, Michigan (Washington, D.C.: 1962), Final Report HC(1)-24, Table 28; and Bureau of the Census, U.S. Census of Housing: 1950, vol. 1, General Characteristics, chapter 22, "Michigan" (Washington, D.C.: 1952), Table 26.

TABLE II-4. TOTAL HOUSING UNITS IN MICHIGAN COUNTIES: 1970 AND 1975

County	1970				1975	
	Seasonal and migratory	Year-round housing units		Total housing units	Year-round housing units	
		Vacant	Total		Vacant	Total
Alcona	2,677	1,196	3,590	6,267	1,675	4,399
Alger	467	844	3,439	3,906	679	3,403
Allegan	2,377	1,808	21,302	23,679	2,087	24,238
Alpena	571	1,126	9,897	10,468	1,007	10,605
Antrim	1,343	2,109	6,037	7,380	3,492	8,152
Arenac	1,427	506	3,913	5,340	673	4,731
Baraga	212	528	2,900	3,112	195	3,090
Barry	1,627	1,626	13,106	14,733	1,033	14,359
Bay	517	1,490	35,601	36,578	1,351	38,991
Benzie	2,152	921	3,717	5,869	1,438	4,711
Berrien	4,553	4,336	55,094	59,647	6,308	60,086
Branch	1,204	1,453	12,661	13,865	818	13,503
Calhoun	357	2,060	46,482	46,839	2,600	49,137
Cass	1,674	2,245	15,602	17,276	2,193	17,598
Charlevoix	1,346	1,269	6,271	7,617	2,934	8,838
Cheboygan	2,898	1,082	6,026	8,924	1,784	7,530
Chippewa	2,103	1,672	10,968	13,071	1,210	11,014
Clare	1,741	5,716	11,061	12,802	5,425	12,343
Clinton	20	475	14,080	14,100	1,007	16,946
Crawford	1,682	352	2,328	4,010	1,619	3,946
Delta	867	1,502	12,318	13,185	684	12,509
Dickinson	778	784	8,639	9,417	1,277	9,636
Eaton	157	805	20,683	20,840	3,220	27,559
Emmet	2,026	1,379	6,878	8,904	789	7,188
Genesee	541	5,382	135,129	135,670	6,318	149,151
Gladwin	1,722	2,922	7,133	8,855	2,608	7,682
Gogebic	1,124	653	7,782	8,906	923	8,032
Grand Traverse	2,433	1,585	13,014	15,447	2,280	16,036
Gratiot	152	814	12,146	12,298	844	13,124
Hillsdale	683	1,397	12,805	13,488	356	12,754
Houghton	1,456	1,563	12,625	14,081	1,093	12,603
Huron	2,668	1,654	11,979	14,647	1,407	12,638
Ingham	109	3,985	81,023	81,132	4,776	89,802
Ionia	350	1,048	13,857	14,207	544	14,705
Iosco	3,196	3,414	10,741	13,937	3,086	12,606
Iron	781	1,163	6,093	6,874	1,077	5,948
Isabella	298	959	12,149	12,447	815	14,287
Jackson	944	1,804	44,065	45,009	1,878	49,505
Kalamazoo	467	2,656	62,062	65,529	5,418	72,983
Kalkaska	458	831	2,576	3,034	1,285	3,339
Kent	2,378	6,602	130,428	131,806	10,526	146,634
Keweenaw	774	170	979	1,753	118	869
Lake	2,414	2,170	4,128	6,542	2,579	4,768
Lapeer	531	1,332	15,167	15,698	3,127	20,316

TABLE II-4. TOTAL HOUSING UNITS IN MICHIGAN COUNTIES: 1970 AND 1975 (cont.)

County	1970				1975	
	Seasonal and migratory	Year-round housing units		Total housing units	Year-round housing units	
		Vacant	Total		Vacant	Total
Leelanau	1,271	1,730	5,056	6,327	2,234	6,039
Lenawee	1,841	1,541	25,780	27,621	2,804	29,707
Livingston	2,024	1,681	18,567	20,591	6,212	28,268
Luce	493	264	2,010	2,503	144	2,389
Mackinac	1,831	1,237	4,180	6,011	1,244	4,256
Macomb	145	4,755	176,333	176,478	2,068	230,866
Manistee	1,516	1,359	7,830	9,346	1,304	8,322
Marquette	1,930	1,784	19,968	21,898	2,004	23,359
Mason	1,131	2,085	9,360	10,491	2,726	10,473
Mecosta	2,140	1,161	8,952	11,092	2,745	11,746
Menominee	349	1,263	8,909	9,258	847	8,981
Midland	225	1,515	19,528	19,753	1,011	22,124
Missaukee	943	593	2,809	3,752	335	2,283
Monroe	60	982	34,184	34,244	22	38,302
Montcalm	2,474	1,559	13,954	16,428	1,584	15,107
Montmorency	1,350	1,698	348	4,830	1,782	3,892
Muskegon	667	2,197	49,228	49,895	2,270	52,316
Newaygo	2,194	2,342	10,788	12,982	2,562	12,232
Oakland	1,975	9,110	273,676	275,651	9,901	338,122
Oceana	1,840	978	6,417	8,257	880	6,892
Ogemaw	1,509	3,907	7,753	9,262	3,893	8,358
Ontonagon	429	675	3,905	4,334	372	3,836
Osceola	1,158	1,006	5,608	6,766	492	5,429
Oscoda	1,895	1,523	3,119	5,014	1,038	3,140
Otsego	779	1,346	4,371	5,150	2,938	6,630
Ottawa	1,123	1,354	37,288	38,411	2,751	46,007
Presque Isle	1,257	616	449	5,706	420	4,474
Roscommon	5,665	3,958	7,545	13,210	5,187	9,550
Saginaw	179	2,495	65,638	65,817	2,375	72,773
St. Clair	879	4,258	40,674	41,553	5,068	45,274
St. Joseph	1,401	1,214	16,415	17,816	1,485	18,014
Sanilac	2,366	1,924	12,475	14,841	1,869	13,553
Schoolcraft	633	666	3,231	3,864	493	3,161
Shiawassee	38	782	19,363	19,401	1,403	21,903
Tuscola	323	1,491	15,200	15,523	2,627	18,085
Van Buren	4,039	2,602	19,864	23,903	1,563	20,992
Washtenaw	925	2,843	71,421	72,346	9,944	89,316
Wayne	247	39,404	869,845	870,092	29,839	903,304
Wexford	504	1,107	7,341	7,845	1,570	8,277
TOTAL	108,967	316,191	2,845,484	2,954,451	220,197	3,204,281

SOURCE: Michigan State Housing Development Authority, Estimates of Physically Inadequate and Dilapidated Housing Units in Michigan, 1975 (Lansing: 1975), pp. 105-270; and Bureau of the Census, U.S. Census of Housing: 1970, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), Final Report HC(1)-B24, Table 60.

TABLE II-5. SELECTED CHARACTERISTICS OF FHA-INSURED HOMES UNDER SECTION 203 IN MICHIGAN AND THE UNITED STATES: 1973-1979

Year	New homes		Existing homes	
	Michigan	United States	Michigan	United States
	Median property value (dollars)			
1973	$25,545	$24,442	$17,488	$18,737
1974	28,835	27,603	18,983	22,123
1975	31,761	32,808	20,231	26,051
1976	32,324	35,278	21,439	27,011
1977	34,882	37,487	23,101	29,252
1978	39,636	41,863	22,871	33,425
1979	43,611	50,406	26,732	38,442
	Average construction cost per square foot			
1973	$20.36	$16.61	--	--
1974	22.17	18.68	--	--
1975	24.26	20.49	--	--
1976	25.92	21.69	--	--
1977	27.80	23.39	--	--
1978	30.69	25.95	--	--
1979	35.78	29.87	--	--
	Average market price of site			
1973	$4,540	$5,051	$2,847	$3,949
1974	5,164	5,372	3,065	4,451
1975	5,664	6,329	3,257	5,423
1976	6,102	6,963	3,261	5,641
1977	6,169	7,279	3,438	5,878
1978	6,901	7,993	3,409	7,052
1979	7,482	9,816	3,920	8,145
	Median improved living area (square feet)			
1973	1,022	1,171	900	1,064
1974	1,068	1,213	910	1,067
1975	1,059	1,309	919	1,118
1976	1,064	1,313	923	1,098
1977	1,043	1,294	934	1,097
1978	1,041	1,316	899	1,103
1979	1,044	1,351	921	1,111
	Percentage with full basement			
1973	89.0	11.0	75.9	31.1
1974	84.3	15.3	73.3	32.9
1975	76.0	15.3	74.7	26.9
1976	73.3	11.8	71.8	23.2
1977	84.4	11.4	73.5	23.0
1978	91.9	11.8	71.9	23.4
1979	92.4	9.6	71.3	25.4

SOURCE: Federal Housing Administration, FHA Homes, 1973 through 1979 (Washington, D.C.: annually), Tables 5S, 7S, 8S, 10S, and 14S (1979).

III. HEALTH AND VITAL STATISTICS

Michigan Health Statistics, published annually by the Michigan Center for Statistics, Michigan Department of Public Health, is the major source of vital statistics presented here. Births and deaths are estimated on the basis of registrations, which are not complete. In 1950, a test done in connection with the Census of Population revealed that registration of births in Michigan was 98.7 percent complete. The Center for Health Statistics believes that death registrations exceed birth registrations because a death certificate is required for the issuance of a burial permit. Delayed registrations of births and deaths cause negligible statistical aberrations.

Since 1950, births and deaths among nonresidents, but taking place in Michigan, have been excluded from the state data; births and deaths among Michigan residents taking place in other states or countries are included. Allocation intrastate is on the basis of county of residence. An effort is made to determine the city of residence, but for a large number of births and deaths in each county it is impossible to determine this jurisdiction from the registration form. Live birth and death statistics for counties appear in Table III-17; some related statistics, used in determining net migration for counties, appear in Table I-7.

Revisions in the International List of Causes of Death affect the comparability of these data over time. The eighth revision has been the basis for cause of death classification in Michigan since 1968.

Annual information about registered hospitals is published in Hospitals, Journal of the American Hospital Association. Michigan Department of Public Health compilations exclude federal hospitals and hospitals licensed by the Michigan Department of Mental Health. The latter has jurisdiction over state hospitals for the mentally ill as well as state homes and training schools for the mentally retarded.

Figures on health manpower in this state are compiled by the Michigan Health Council, East Lansing, from data provided by the Michigan Department of Licensing and Regulation.

Those with a special interest in the death rate from motor vehicle accidents should consult chapter XVII.

The story of the establishment of Harper Hospital in Detroit was located in Adjutant General Jno. Roberton's Michigan in the War, rev. ed. (Lansing: W.S. George & Co., State Printers and Binders, 1882), pp. 115-16. It is reproduced in the Appendix to this chapter.

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TABLE III-1. LIVE BIRTHS AND DEATHS OF MICHIGAN AND U.S. RESIDENTS: 1945-1979

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1945	111,557	53,641	2,735,456	1,401,719
1946	138,572	54,856	3,288,672	1,395,617
1947	160,275	56,807	3,699,940	1,445,370
1948	153,726	56,520	3,535,068	1,444,337
1949	156,469	57,107	3,559,529	1,443,607
1950	160,055	57,567	3,554,149	1,452,454
1951	172,451	59,181	3,750,850	1,482,099
1952	177,835	59,138	3,846,986	1,496,838
1953	182,968	62,087	3,902,120	1,517,541
1954	192,104	60,706	4,017,362	1,481,091
1955	196,294	63,087	4,047,295	1,528,717
1956	206,068	64,352	4,163,090	1,564,476
1957	208,488	66,435	4,254,784	1,633,128
1958	202,690	65,899	4,203,812	1,647,886
1959	198,301	66,812	4,244,796	1,656,814
1960	195,056	67,912	4,257,850	1,711,982
1961	192,825	67,375	4,268,326	1,701,522
1962	182,790	70,049	4,167,362	1,756,720
1963	178,871	72,438	4,098,020	1,813,549
1964	175,103	72,129	4,027,490	1,798,051
1965	166,464	73,665	3,760,358	1,828,136
1966	165,794	74,596	3,606,274	1,863,149
1967	162,756	75,360	3,520,959	1,851,323
1968	159,058	76,855	3,501,564	1,930,082
1969	165,760	76,693	3,600,206	1,921,990
1970	171,667	76,321	3,731,386	1,921,031
1971	162,244	77,395	3,555,970	1,927,542
1972	146,854	79,210	3,258,411	1,963,944
1973	141,550	78,522	3,136,965	1,973,003
1974	137,414	76,143	3,159,958	1,934,388
1975	133,931	74,522	3,144,198	1,892,879
1976	131,378	75,801	3,167,788	1,909,440
1977	138,416	74,144	3,326,632	1,899,597
1978	138,802	74,773	3,329,000[p]	1,924,000[p]
1979	143,653[p]	72,701[p]	3,473,000[p]	1,906,000[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), and special release; and National Center for Health Statistics, Vital Statistics of the United States (Washington, D.C.: 1964) and Monthly Vital Statistics Report (Washington, D.C.: monthly).

p: provisional

n.a.: not available.

TABLE III-2. LIVE BIRTH AND DEATH RATES PER 1,000 POPULATION OF MICHIGAN AND U.S. RESIDENTS: 1945-1979

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1945	20.5	9.9	19.5	10.6
1946	24.3	9.6	23.3	10.0
1947	26.4	9.4	25.8	10.1
1948	24.8	9.1	24.2	9.9
1949	24.6	9.0	23.9	9.7
1950	25.1	9.0	23.6	9.6
1951	26.3	9.0	24.5	9.7
1952	26.5	8.8	24.7	9.6
1953	26.7	9.1	24.7	9.6
1954	27.3	8.6	24.9	9.2
1955	27.1	8.7	24.6	9.3
1956	27.4	8.6	24.9	9.4
1957	26.7	8.5	25.0	9.6
1958	25.8	8.4	24.3	9.5
1959	24.9	8.4	24.0	9.4
1960	24.9	8.7	23.7	9.5
1961	24.4	8.5	23.3	9.3
1962	23.0	8.8	22.4	9.5
1963	22.3	9.0	21.7	9.6
1964	21.6	8.9	21.0	9.4
1965	20.3	9.0	19.4	9.4
1966	19.9	9.0	18.4	9.5
1967	18.9	8.7	17.8	9.4
1968	18.3	8.9	17.5	9.7
1969	19.0	8.8	17.8	9.5
1970	19.3	8.6	18.4	9.5
1971	18.0	8.6	17.2	9.3
1972	16.3	8.8	15.6	9.4
1973	15.6	8.7	14.9	9.4
1974	15.1	8.4	14.9	9.2
1975	14.6	8.1	14.8	8.9
1976	14.4	8.3	14.8	8.9
1977	15.2	8.1	15.4	8.8
1978	15.1	8.1	15.3[p]	8.8[p]
1979	15.6[p]	7.9[p]	15.8[p]	8.7[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), and special release; and National Center for Health Statistics, Vital Statistics of the United States (Washington, D.C.: 1964) and Monthly Vital Statistics Report (Washington, D.C.: monthly).

p: provisional.

TABLE III-3. FERTILITY RATES, MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1900-1978

Year	Michigan	United States
1900	78.5	n.a.
1910	99.0	126.8
1920	111.6	117.9
1930	87.6	89.2
1940	78.9	79.9
1950	110.5	106.2
1960	123.1	118.0
1970	91.7	87.6
1971	84.7	81.9
1972	76.5	73.4
1973	72.2	69.2
1974	70.0	68.4
1975	67.1	66.7
1976	68.7	65.8
1977	71.1	67.8
1978	69.9	66.4[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 1.3; and Michigan Department of Public Health, special release (1978 data).
n.a.: not available.
p.: provisional

TABLE III-4. LIVE BIRTHS IN MICHIGAN, BY RACE: 1963-1978

	White		Negro and other minority races[a]		
Year	Number	Percentage of total births	Number	Percentage of total births	Total
1963	158,914	88.8	19,957	11.2	178,871
1964	154,790	88.4	20,313	11.6	175,013
1965	145,784	87.6	20,680	12.4	166,464
1966	143,876	86.8	21,918	13.2	165,794
1967	139,721	85.8	23,035	14.2	162,756
1968	135,436	85.1	23,622	14.9	159,058
1969	140,222	84.6	25,538	15.4	165,760
1970	143,871	83.8	27,796	16.2	171,667
1971	134,165	82.7	28,079	17.3	162,244
1972	119,787	81.6	27,066	18.4	146,854
1973	114,878	81.2	26,672	18.8	141,550
1974	112,474	81.9	24,940	18.1	137,414
1975	109,718	81.9	24,213	18.1	133,931
1976	107,907	82.1	23,471	17.9	131,378
1977	114,042	82.4	24,374	17.6	138,416
1978	114,217	82.3	24,585	17.7	138,802

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 1.4; and Michigan Department of Public Health, special release (1978 data).
a. Indians from India were counted as "white" from 1970-1977, and with "other" in 1978.

TABLE III-5. LIVE BIRTHS IN MICHIGAN, BY LIVE BIRTH ORDER: 1968 AND 1978

Live birth order	No. of births		Percentage of total	
	1968	1978	1968	1978
First birth	52,147	57,767	32.8	41.6
Second birth	40,638	44,356	25.5	32.0
Third birth	25,045	21,486	15.7	15.5
Fourth birth	15,593	7,984	9.8	5.8
Fifth birth or greater	24,131	5,395	15.2	3.9
Not stated	1,504	1,814	0.9	1.3
TOTAL	159,058	138,802	99.9	100.1

SOURCE: Michigan Department of Public Health, special release.

TABLE III-6. FIRST BIRTHS, MICHIGAN AND U.S. RESIDENTS: 1968-1978

Year	Michigan		United States	
	First births	Percentage of all births	First births	Percentage of all births
1968	52,147	32.8	1,311,460	37.5
1969	56,497	34.1	1,353,278	37.6
1970	64,222	37.4	1,430,680	38.3
1971	60,413	37.2	1,375,668	38.7
1972	57,477	39.1	1,289,257	39.6
1973	57,411	40.6	1,243,358	39.6
1974	56,233	40.9	1,314,194	41.6
1975	55,348	41.3	1,319,126	42.0
1976	54,003	41.1	1,324,811	41.8
1977	56,622	40.9	1,387,143	41.7
1978	57,767	41.6	n.a.	n.a.

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 1.10; and Michigan Department of Public Health, special release (1978 data).

n.a.: not available.

TABLE III-7. LIVE BIRTHS IN MICHIGAN, BY AGE OF MOTHER: 1945-1978

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Age not given
1945	73	9,294	32,790	33,143	22,831	11,185	2,970	229	140
1946	72	10,899	45,999	41,985	25,184	11,811	3,002	223	102
1947	91	15,594	55,954	47,793	26,296	12,009	3,073	182	93
1948	95	16,245	53,520	45,059	25,268	11,391	2,888	173	91
1949	117	16,404	53,608	46,363	25,971	11,565	2,906	181	63
1950	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92
1951	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84
1952	134	17,206	58,012	54,198	31,756	13,880	3,176	220	52
1953	166	18,510	58,070	54,734	32,948	14,798	3,350	190	44
1954	208	20,522	50,776	55,962	35,152	15,862	3,598	220	32
1955	195	21,417	61,952	56,462	35,968	16,554	3,862	198	15
1956	192	22,808	66,332	58,392	36,870	17,282	4,172	164	14
1957	190	23,798	67,086	58,424	36,980	17,956	4,160	200	14
1958	222	23,034	65,834	55,130	36,278	17,892	4,296	196	18
1959	200	21,922	65,426	53,434	34,934	18,030	4,424	198	8
1960	186	22,786	65,108	51,842	33,228	17,410	4,288	202	6
1961	212	23,891	64,336	50,277	32,456	17,067	4,363	203	20
1962	268	22,702	62,243	47,109	29,817	16,160	4,250	224	17
1963	210	21,686	62,834	46,063	28,364	15,117	4,359	229	9
1964	264	22,526	62,196	44,671	26,542	14,509	4,162	220	13
1965	267	24,653	59,439	40,693	23,767	13,528	3,886	211	20
1966	310	28,690	60,711	39,225	21,205	11,846	3,547	223	37
1967	316	27,267	61,541	40,052	19,840	10,479	3,059	178	24
1968	400	26,390	60,072	41,561	18,613	9,095	2,739	163	25
1969	421	28,061	63,376	44,615	18,535	8,157	2,433	134	28
1970	489	29,764	65,892	46,262	19,003	7,904	2,223	118	12
1971	472	28,480	62,367	43,639	18,259	6,975	1,926	112	14
1972	503	28,108	54,199	40,442	16,133	5,805	1,555	95	14
1973	569	27,808	51,284	39,845	15,520	5,163	1,277	62	22
1974	501	25,977	49,975	40,215	15,317	4,291	1,063	50	25
1975	463	24,509	48,675	40,061	14,891	4,273	982	54	23
1976	404	22,593	47,161	41,412	14,893	4,053	799	47	16
1977	426	22,585	49,740	43,346	17,293	4,178	771	51	26
1978	345	21,487	49,498	43,744	18,367	4,562	729	50	20

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.3, and special release (1978 data).

NOTE: Total birth figures are presented in Table III-1.

TABLE III-8. LIVE BIRTH RATES IN MICHIGAN, BY AGE OF MOTHER: 1945-1978

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total fertility rate[a]
1945	0.3	40.8	135.5	133.4	98.5	52.1	15.4	1.3	2,386.5
1946	0.3	48.3	188.5	165.3	106.2	53.8	15.3	1.2	2,894.5
1947	0.4	69.7	227.3	184.2	108.4	53.6	15.4	1.0	3,300.0
1948	0.4	73.2	215.5	170.0	101.9	49.8	14.2	1.0	3,130.0
1949	0.5	74.6	214.0	171.4	102.5	49.6	14.1	1.0	3,138.5
1950	0.5	74.6	212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4	79.1	229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5	73.5	233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6	76.8	234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7	82.8	246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955	0.6	84.1	253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956	0.6	87.2	272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6	88.6	277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958	0.6	83.6	273.4	221.5	134.3	65.0	17.2	0.9	3,982.5
1959	0.6	77.6	273.3	217.4	128.6	64.4	17.3	0.9	3,900.5
1960	0.5	79.3	273.1	213.0	121.8	61.4	16.6	0.9	3,833.0
1961	0.6	78.1	252.0	200.7	120.2	61.3	16.8	0.9	3,653.0
1962	0.7	70.7	231.5	183.9	111.4	58.9	16.3	0.9	3,371.5
1963	0.5	64.6	222.5	175.9	107.0	55.9	16.6	0.9	3,219.5
1964	0.6	64.2	210.1	167.0	101.0	54.4	15.8	0.9	3,070.0
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.2	154.2	76.2	32.4	8.3	0.4	2,584.5
1971	1.0	63.5	157.3	141.4	71.8	28.8	7.3	0.4	2,357.5
1972	1.0	62.5	136.4	130.7	63.4	23.9	5.8	0.3	2,120.0
1973	1.2	60.1	131.9	120.9	55.8	22.1	4.7	0.2	1,984.5
1974	1.1	55.4	126.0	120.2	52.4	18.1	4.5	0.2	1,889.5
1975	1.0	51.7	118.8	116.8	49.2	17.7	4.3	0.2	1,798.5
1976	0.9	47.7	122.1	120.8	48.7	18.4	4.3	0.2	1,815.5
1977	0.9	47.6	127.4	130.5	52.8	17.6	4.2	0.2	1,906.0
1978	0.7	45.6	125.3	132.3	53.8	17.5	3.9	0.2	1,896.5

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.4, and special release (1978 data).

NOTE: Live birth rates are per 1,000 women per year.

a. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

TABLE III-9. INFANT, NEONATAL, PERINATAL, FETAL, AND MATERNAL DEATHS, AND DEATHS DUE TO IMMATURITY IN MICHIGAN: 1945-1979

Year	Under 1 year	Under 28 days	Perinatal	Due to immaturity	Fetal	Maternal
1945	4,008	2,670	4,906	1,339	2,703	166
1946	4,541	3,323	5,978	1,735	3,168	163
1947	5,055	3,677	6,583	1,955	3,422	173
1948	4,617	3,352	5,968	1,820	3,132	120
1949	4,520	3,232	5,746	1,795	2,994	105
1950	4,214	3,043	5,781	1,096	3,095	91
1951	4,505	3,296	6,088	1,232	3,158	94
1952	4,689	3,414	6,266	1,256	3,224	82
1953	4,728	3,389	6,188	1,114	3,180	79
1954	4,795	3,560	6,415	1,298	3,249	94
1955	4,873	3,707	6,381	1,272	3,029	61
1956	5,047	3,796	6,655	1,244	3,245	84
1957	5,093	3,884	6,668	1,322	3,154	79
1958	4,980	3,789	6,516	1,208	3,101	69
1959	4,846	3,674	6,250	1,201	2,928	72
1960	4,702	3,580	6,247	1,148	3,008	75
1961	4,604	3,475	5,875	1,003	2,735	78
1962	4,367	3,251	5,669	907	2,703	56
1963	4,150	3,109	5,407	816	2,540	71
1964	4,043	3,071	5,293	807	2,466	62
1965	3,936	2,909	5,139	768	2,475	54
1966	3,751	2,830	4,909	819	2,295	54
1967	3,595	2,714	4,693	718	2,195	52
1968	3,438	2,617	4,476	487	2,064	44
1969	3,356	2,550	4,488	459	2,175	27
1970	3,492	2,683	4,522	436	2,060	29
1971	3,157	2,412	4,139	386	1,923	32
1972	2,801	2,115	3,700	316	1,770	35
1973	2,561	1,902	3,392	263	1,682	26
1974	2,387	1,734	2,960	240	1,451	19
1975	2,205	1,563	2,690	187	1,373	16
1976	1,978	1,424	2,502	186	1,271	14
1977	1,945	1,367	2,456	155	1,288	11
1978	1,931	1,281	2,322	152	1,221	15
1979	1,878[p]	n.a.	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.1, and special release (1978 and 1979 data).
p: provisional.
n.a.: not available.

TABLE III-10. NUMBER OF DEATHS BY SIX LEADING CAUSES AMONG MICHIGAN RESIDENTS: 1945-1979

Year	Heart disease	Cancer (all forms)	Cerebro-vascular disease	Accidents		Diabetes	Influenza and Pneumonia
				Motor vehicle	All forms		
1945	17,421	7,486	5,295	1,199	3,432	1,561	2,138
1946	17,691	7,845	5,224	1,506	3,776	1,530	2,119
1947	18,412	8,188	5,426	1,499	3,848	1,618	2,276
1948	18,726	8,336	5,272	1,545	4,017	1,771	1,929
1949	19,137	8,697	5,438	1,493	3,838	1,884	1,968
1950	20,521	8,685	6,376	1,680	3,783	1,438	1,481
1951	21,118	9,187	6,579	1,806	3,916	1,374	1,892
1952	21,247	9,256	6,521	1,815	3,901	1,339	1,693
1953	22,425	9,904	7,045	2,051	4,375	1,419	1,777
1954	22,362	10,105	6,964	1,916	3,948	1,469	1,437
1955	23,440	10,297	7,362	2,129	4,213	1,415	1,599
1956	24,661	10,489	7,114	1,826	3,925	1,443	1,779
1957	25,369	10,810	7,632	1,680	3,643	1,510	2,237
1958	25,215	10,946	7,547	1,466	3,306	1,595	2,209
1959	25,323	11,113	7,700	1,587	3,666	1,715	1,920
1960	25,728	11,331	7,682	1,710	3,688	1,784	2,224
1961	25,519	11,476	7,745	1,656	3,692	1,778	1,762
1962	27,226	11,752	7,783	1,668	3,758	1,908	1,954
1963	27,483	12,078	8,168	2,005	4,033	2,049	2,229
1964	27,496	12,087	7,940	2,286	4,416	2,055	1,754
1965	28,134	12,419	7,769	2,271	4,494	2,153	2,086
1966	28,277	12,506	7,732	2,407	4,737	2,243	2,085
1967	28,757	13,030	7,846	2,265	4,519	2,192	2,051
1968	29,680	13,292	7,913	2,466	4,603	2,298	2,577
1969	29,396	13,328	7,706	2,529	4,766	2,188	2,439
1970	29,204	13,551	7,691	2,309	4,428	2,180	2,101
1971	30,095	13,594	7,826	2,274	4,426	2,103	2,058
1972	30,865	14,045	7,999	2,450	4,566	2,222	2,201
1973	29,944	14,220	7,987	2,389	4,630	2,074	2,090
1974	29,220	14,241	7,645	1,929	4,211	1,940	1,698
1975	28,298	14,445	7,262	1,841	4,002	1,819	1,825
1976	29,233	14,880	7,354	1,993	3,912	1,719	2,106
1977	28,895	15,125	6,818	1,960	3,945	1,615	1,660
1978	29,406	15,249	6,520	2,138	3,970	1,551	2,003
1979	29,780[p]	15,128[p]	6,074[p]	n.a.	3,630[p]	1,409[p]	1,460[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.8; and special release (1978 and 1979 data).
p: provisional
n.a.: not available.

TABLE III-11. NUMBER OF DEATHS AMONG MICHIGAN RESIDENTS, BY SIXTEEN LEADING CAUSES, BY SEX AND AGE GROUP: 1978

Cause	Sex			Age group					
	Male	Female	Total	Under 1 year	1-19 years	20-44 years	45-64 years	65 and over	Not stated
Diseases of heart	16,160	13,246	29,406	40	39	647	6,327	22,353	--
Cancer	8,476	6,773	15,249	6	146	764	5,496	8,837	--
Cerebrovascular	2,778	3,742	6,520	5	20	171	936	5,388	--
Accidents	2,756	1,214	3,970	50	915	1,471	691	843	--
Diabetes mellitus	639	912	1,551	--	5	65	357	1,124	--
Influenza and pneumonia	1,026	977	2,003	47	43	83	274	1,556	--
Cirrosis of liver	883	468	1,351	--	2	190	800	359	--
Homicide	706	225	931	10	122	574	176	48	1
Suicide	847	285	1,132	--	101	597	276	158	--
Arteriosclerosis	460	686	1,146	--	--	--	41	1,105	--
Emphysema	492	175	667	--	--	2	163	502	--
Aortic aneurysm (nonsyphilitic)	413	180	593	--	3	11	104	475	--
Congenital anomalies	288	228	518[b]	347	84	41	28	18	--
Venous thrombosis and embolism[a]	242	278	520	--	2	48	144	326	--
Nephritis and nephrosis	209	162	371	2	6	32	77	254	--
Peptic Ulcer	120	96	216	--	2	8	53	153	--
All other causes	4,844	3,783	8,629	1,424	279	685	1,713	4,528	--
TOTAL	41,339	33,430	74,773[c]	1,931	1,769	5,389	17,656	48,027	1

SOURCE: Michigan Department of Public Health, special release.

a. Includes 8th revision ICDA codes 450-453.

b. Male and female congenital anomaly deaths do not seem to total due to two deaths with sex unknown.

c. Male and female death do not seem to total due to four deaths with sex unknown.

TABLE III-12. DEATH RATES AMONG MICHIGAN RESIDENTS, BY AGE AND SEX: 1977 AND 1978

Age	1977			1978		
	Male	Female	Total	Male	Female	Total
All ages	926.2	701.5	812.2	914.2	716.4	813.7
0-4 years	363.9	289.6	327.6	375.6	279.7	329.3
5-9 years	30.2	26.3	28.3	35.0	23.3	29.3
10-14 years	44.3	21.9	33.3	37.3	18.0	27.8
15-19 years	144.3	55.4	99.7	140.4	53.4	96.9
20-24 years	229.2	67.1	145.4	224.1	81.3	150.9
25-29 years	283.3	85.8	169.9	299.1	78.9	172.4
30-34 years	167.4	88.2	129.0	179.7	87.6	133.9
35-39 years	223.3	148.7	189.0	204.3	140.8	175.1
40-44 years	408.0	290.2	352.5	380.3	276.8	331.7
45-49 years	596.5	388.5	495.2	579.1	383.6	484.5
50-54 years	958.1	507.7	728.5	868.4	502.1	682.7
55-59 years	1,430.6	740.9	1,072.2	1,370.0	720.1	1,032.1
60-64 years	2,359.0	1,156.4	1,736.2	2,281.3	1,214.0	1,725.5
65-69 years	3,709.7	1,958.7	2,777.9	3,561.0	1,938.5	2,695.9
70-74 years	5,978.2	3,070.0	4,335.1	5,828.5	3,071.3	4,272.4
75-79 years	7,415.1	4,257.6	5,528.6	7,635.7	4,403.4	5,698.1
80-84 years	7,851.6	5,892.4	6,678.1	7,914.1	5,923.2	6,712.2
85 and over	14,468.7	13,642.0	13,944.8	13,898.6	13,726.2	13,789.5

SOURCES: Michigan Department of Public Health, special release.

NOTE: Rates per 100,000 population.

TABLE III-13. DEATHS FROM ACCIDENTS IN MICHIGAN, BY EXTERNAL CAUSE OF INJURY: 1970-1978

Cause of injury	1970	1971	1972	1973	1974	1975	1976	1977	1978
Transport, total	2,441	2,410	2,609	2,542	2,040	1,961	2,093	2,094	2,237
Motor vehicle	2,309	2,274	2,450	2,389	1,929	1,841	1,993	1,993	2,138
Railroad	19	21	15	11	10	10	9	8	13
Other road vehicle, nontraffic	4	5	11	6	5	4	6	2	2
Water transportation	67	64	62	67	47	56	35	33	58
Air transportation	42	46	71	69	49	50	50	58	26
Nontransport, total	1,922	1,969	1,924	2,004	2,106	1,978	1,763	1,781	1,663
Poisoning	210	214	225	229	232	246	223	156	162
Falls	724	674	653	652	685	618	580	564	537
Blow from falling object	44	48	32	36	36	32	35	45	34
Machinery	29	22	31	24	22	32	22	21	19
Electric current	32	39	39	42	33	46	30	55	30
Fire and explosion of combustible material	256	325	277	283	337	274	251	311	245
Hot substance, corrosive liquid, steam radiation	42	12	8	10	8	12	5	3	11
Firearm	79	70	69	75	87	67	53	60	37
Inhalation or ingestion of food or other object	127	125	118	135	151	139	143	105	141
Mechanical suffocation	53	43	57	39	49	38	41	28	38
Drowning or submersion	231	224	244	294	275	293	235	238	205
Other causes	95	173	171	185	191	181	145	195	204
Therapeutic, misadventure, late complication; complications of nontherapeutic procedures; late effects of injury and poisoning	65	47	33	84	65	63	56	70	70
TOTAL	4,428	4,426	4,566	4,630	4,211	4,002	3,912	3,945	3,970

SOURCE: Michigan Department of Public Health, special release.

TABLE III-14. LIFE EXPECTANCY AT BIRTH, BY SEX, MICHIGAN AND U.S. RESIDENTS, SELECTED YEARS: 1901-1978

Year	Michigan[a]		United States	
	Male life expectancy	Female life expectancy	Male life expectancy	Female life expectancy
1901	53.4	55.1	47.6	50.6
1910	53.9	56.2	48.4	51.8
1920	55.1	56.0	53.6	54.6
1930	59.8	62.8	58.1	61.6
1940	63.4	67.4	60.8	65.2
1950	65.7	71.2	65.6	71.1
1960	67.1	73.3	66.6	73.1
1970	67.2	74.6	67.1	74.8
1971	67.3	74.9	67.4	75.0
1972	67.3	74.9	67.4	75.1
1973	67.4	75.0	67.6	75.3
1974	68.0	75.3	68.1	75.8
1975	68.5	75.7	68.7	76.5
1976	69.0	75.9	69.0	76.7
1977	69.3	76.3	69.3	77.1
1978	69.6[p]	76.4[p]	n.a.	n.a.

SOURCE: Michigan Department of Public Health, special release.
a. Michigan data for 1920, 1930, and 1940 are for white only.
p: provisional.
n.a.: not available.

TABLE III-15. LIFE EXPECTANCY AT BIRTH, BY SEX AND RACE, MICHIGAN RESIDENTS: 1950, 1960, 1970, AND 1978

Population subgroup	Year			
	1950	1960	1970	1978
White				
Female	71.9	74.0	75.3	77.1[p]
Male	66.2	67.5	68.2	70.3[p]
Total white	68.8	70.5	71.6	73.6[p]
All other				
Female	63.4	67.7	69.4	72.2[p]
Male	60.4	63.6	61.0	65.0[p]
Total all other	61.8	65.6	65.0	68.6[p]
Total				
Female	71.2	73.3	74.6	76.4[p]
Male	65.7	67.1	67.2	69.6[p]
Total population	68.3	70.0	70.8	72.9[p]

SOURCE: Michigan Department of Public Health, special release.

p: provisional.

TABLE III-16. REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES IN MICHIGAN, SELECTED PERIODS: 1930-1979

Disease	Annual average				Annual total			
	1930-1939	1940-1949	1950-1959	1960-1969	1976	1977	1978	1979
Diphtheria	1,121	245	66	2	0	0	0	0
Scarlet fever	15,860[a]	7,553[a]	6,745[a]	11,656[a]	24,937[a]	31,047[a]	29,759[a]	30,182[a]
Smallpox	445	26	0	0	0	0	0	0
Typhoid fever	373	85	31	9	10	13	15	14
Whooping cough	11,815	8,676	3,464	884	70	73	47	102
Measles	28,467	29,939	28,907	21,569	6,139	1,392	8,006	869
Infectious hepatitis[b] (includes serum hepatitis)	0	44	748	2,798	2,645	2,686	2,174	2,036
Tuberculosis[c] (all forms)	5,897	5,967	5,559	3,181	1,349	1,290	1,260	1,052
Meningococcal infections[d]	190	257	164	127	65	51	87	79
Poliomyelitus	393	844	1,593	18	1	0	1	0
Syphilis	10,670	13,726	5,495	4,824	1,089	1,185	1,133	1,260
Gonorrhea	6,931	10,176	8,858	13,612	34,836	36,794	36,647	36,624
Chancroid	180	277	106	99	37	61	49	59

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.5, and special release (1978-1979 data).

a. Streptococcal sore throat including scarlet fever.

b. No cases tabulated prior to 1945. Figure shown is average of 1945-1949.

c. Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1976 and later years.

d. Prior to 1952 data were for meningococcic meningitis.

TABLE III-17. LIVE BIRTHS AND DEATHS, AND RATES, AMONG MICHIGAN RESIDENTS, BY COUNTY: 1977 AND 1978

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1977	1978	1977	1978	1977	1978	1977	1978
Alcona	105	104	11.8	11.2	114	125	12.8	13.4
Alger	164	134	16.7	13.4	107	103	10.9	10.3
Allegan	1,213	1,307	16.4	17.7	582	599	7.9	8.1
Alpena	472	480	14.0	14.4	269	278	8.0	8.3
Antrim	208	254	13.2	15.6	193	169	12.2	10.4
Arenac	221	200	16.3	14.8	133	151	9.8	11.2
Baraga	145	157	17.3	18.3	97	93	11.5	10.8
Barry	666	661	15.8	15.4	354	339	8.4	7.9
Bay	1,942	1,880	16.2	15.5	954	913	7.9	7.5
Benzie	147	152	14.0	14.3	123	110	11.7	10.4
Berrien	2,865	2,702	16.9	16.2	1,523	1,492	9.0	8.9
Branch	610	589	16.2	15.1	384	406	10.2	10.4
Calhoun	2,212	2,173	15.8	15.4	1,283	1,229	9.2	8.7
Cass	766	694	17.1	15.3	406	383	9.1	8.4
Charlevoix	309	324	15.8	16.7	200	165	10.3	8.5
Cheboygan	312	336	15.4	17.0	210	204	10.3	10.3
Chippewa	594	428	16.1	14.0	312	279	8.5	9.1
Clare	298	322	13.1	13.5	238	292	10.4	12.3
Clinton	818	867	15.0	15.8	328	313	6.0	5.7
Crawford	141	146	15.7	16.0	86	104	9.6	11.4
Delta	604	592	15.1	14.7	389	403	9.7	10.0
Dickinson	375	347	14.8	13.3	327	283	12.9	10.8
Eaton	1,144	1,179	14.4	14.4	490	501	6.2	6.1
Emmet	326	338	15.3	15.7	222	225	10.4	10.5
Genesee	7,311	7,313	16.4	16.2	3,274	3,385	7.4	7.5
Gladwin	264	224	15.3	13.3	202	186	11.7	10.2
Gogebic	231	253	11.4	12.9	283	286	13.9	14.6
Grand Traverse	804	833	17.3	17.2	395	426	8.5	8.8
Gratiot	675	673	17.0	17.1	333	353	8.4	9.0
Hillsdale	632	641	15.6	15.6	345	373	8.5	9.1
Houghton	486	502	13.1	13.5	425	464	11.5	12.4
Huron	583	568	15.9	15.9	410	420	11.2	11.7
Ingham	4,357	4,369	16.0	16.1	1,634	1,588	6.0	5.9
Ionia	799	805	16.3	16.2	417	423	8.5	8.5
Iosco	578	564	18.9	18.5	282	262	9.2	8.6
Iron	191	186	13.2	12.7	187	191	12.9	13.0
Isabella	759	717	14.7	13.8	330	290	6.4	5.6
Jackson	2,210	2,197	14.7	14.6	1,295	1,209	8.6	8.0
Kalamazoo	2,966	2,916	14.4	14.0	1,338	1,385	6.5	6.7
Kalkaska	165	199	14.3	17.5	92	94	8.0	8.2
Kent	7,263	7,319	16.9	16.8	3,365	3,530	7.8	8.1
Keweenaw	22	36	8.5	16.4	31	29	11.7	13.2
Lake	114	118	16.1	16.9	115	110	16.2	15.7

TABLE III-17. LIVE BIRTHS AND DEATHS, AND RATES, AMONG MICHIGAN RESIDENTS, BY COUNTY: 1977 AND 1978 (cont.)

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1977	1978	1977	1978	1977	1978	1977	1978
Lapeer	1,067	1,104	16.5	16.5	462	435	7.2	6.5
Leelanau	136	195	10.4	14.6	127	127	9.7	9.5
Lenawee	1,434	1,459	16.8	16.7	701	701	8.2	8.0
Livingston	1,244	1,361	14.4	14.7	508	518	5.9	5.6
Luce	112	98	15.6	13.4	88	70	12.2	9.6
Mackinac	163	138	15.1	12.3	116	130	10.7	11.6
Macomb	9,040	9,299	13.2	13.4	4,119	4,344	6.0	6.3
Manistee	290	302	13.3	13.4	272	245	12.5	10.9
Marquette	1,359	1,469	18.6	19.9	527	548	7.2	7.4
Mason	359	363	14.2	14.7	247	253	9.8	10.2
Mecosta	468	442	13.7	12.7	214	218	6.3	6.3
Menominee	400	437	15.3	16.5	300	288	11.5	10.9
Midland	1,082	1,090	15.5	15.6	418	455	6.0	6.5
Missaukee	156	189	16.6	19.5	78	104	8.3	10.7
Monroe	2,072	1,878	16.0	14.2	907	869	7.0	6.6
Montcalm	792	794	17.2	17.5	432	463	9.4	10.2
Montmorency	115	119	15.8	15.5	77	81	10.5	10.5
Muskegon	2,515	2,518	15.9	15.9	1,315	1,315	8.3	8.3
Newaygo	552	545	17.1	16.3	313	333	9.7	10.0
Oakland	13,084	13,637	13.3	13.5	6,637	6,815	6.7	6.8
Oceana	337	381	16.0	18.1	230	224	11.0	10.7
Ogemaw	215	225	14.4	13.4	191	212	12.8	12.6
Ontonagon	121	125	10.9	11.7	111	115	10.0	10.7
Osceola	288	279	15.6	15.3	180	179	9.7	9.8
Oscoda	83	98	13.0	14.6	72	79	11.3	11.8
Otsego	257	260	17.8	18.2	88	114	6.1	8.0
Ottawa	2,499	2,564	17.1	17.2	935	972	6.4	6.5
Presque Isle	220	211	15.7	15.0	143	135	10.2	9.6
Roscommon	208	182	13.2	11.2	190	183	12.1	11.3
Saginaw	3,700	3,700	16.3	16.2	1,705	1,687	7.5	7.4
St. Clair	2,015	2,071	15.3	15.5	1,182	1,191	9.0	8.9
St. Joseph	902	923	17.7	17.8	457	461	9.0	8.9
Sanilac	604	617	15.6	15.3	399	387	10.3	9.6
Schoolcraft	152	135	17.1	14.5	105	104	11.8	11.2
Shiawassee	1,138	1,143	16.4	16.3	508	459	7.3	6.5
Tuscola	864	916	16.0	16.6	460	429	8.5	7.8
Van Buren	1,047	1,036	16.9	16.6	621	588	10.0	9.4
Washtenaw	3,562	3,658	14.2	14.4	1,219	1,298	4.9	5.1
Wayne	36,293	35,677	15.0	14.9	23,173	23,234	9.6	9.7
Wexford	384	339	17.1	14.9	210	225	9.4	9.9
Not stated	20	6			30	22		
TOTAL	138,416	138,802	15.2	15.1	74,144	74,773	8.1	8.1

SOURCE: Michigan Department of Public Health, Michigan Vital Statistics by County, 1977 and 1978.

a. Rate per 1,000 population.

TABLE III-18. MARRIAGES AND DIVORCES TAKING PLACE IN MICHIGAN AND THE UNITED STATES: 1945-1979

Year	Michigan		United States	
	Marriages	Divorces	Marriages	Divorces
1945	48,329	21,133	1,612,992	485,000
1946	78,808	29,158	2,291,045	610,000
1947	71,319	21,386	1,991,878	483,000
1948	61,986	16,017	1,811,155	408,000
1949	53,109	16,274	1,579,798	397,000
1950	58,180	15,979	1,667,231	385,144
1951	53,411	15,446	1,594,694	381,000
1952	50,487	14,925	1,539,318	392,000
1953	53,308	16,537	1,546,000	390,000
1954	51,243	16,281	1,490,000	379,000
1955	55,698	17,676	1,531,000	377,000
1956	57,068	16,228	1,585,000	382,000
1957	55,121	15,442	1,518,000	381,000
1958	55,159	14,040	1,451,000	368,000
1959	58,826	16,168	1,494,000	395,000
1960	61,090	16,656	1,523,000	393,000
1961	63,320	16,219	1,548,000	414,000
1962	65,002	17,500	1,577,000	413,000
1963	68,160	17,479	1,654,000	428,000
1964	73,911	19,400	1,725,000	450,000
1965	81,247	20,305	1,800,000	479,000
1966	83,903	21,727	1,857,000	499,000
1967	84,363	23,620	1,927,000	523,000
1968	90,984	25,400	2,069,000	584,000
1969	93,392	28,347	2,145,000	639,000
1970	91,933	29,934	2,158,802	708,000
1971	92,134	31,790	2,190,481	773,000
1972	94,447	35,505	2,282,154	845,000
1973	94,486	37,121[a]	2,284,108	915,000
1974	88,023	39,940[a]	2,229,667	977,000
1975	82,856	40,782	2,152,662	1,036,000
1976	82,753	43,101	2,154,807	1,083,000
1977	86,088	43,036	2,178,367	1,091,000
1978	88,333	45,029	2,243,000[p]	1,128,000[p]
1979	89,214[p]	44,114[p]	2,317,000[p]	1,170,000[p]

SOURCES: Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.1 (pre-1978 Michigan data), and special release (1978 and 1979 Michigan data; National Center for Health Statistics, Vital Statistics of the United States, 1972, vol. 3, Marriage and Divorce (Rockville, Md.: 1975), Tables 1.5 and 2.2 (pre-1958 U.S. data); and National Center for Health Statistics, Monthly Vital Statistics Report, vol. 27, no. 13 (1958-1978 U.S. data) and vol. 28, no. 12 (1979 U.S. data).

a. estimate.

p.: provisional.

TABLE III-19. MARRIAGE AND DIVORCE RATES IN MICHIGAN AND THE UNITED STATES: 1945-1979

Year	Michigan		United States	
	Marriages	Divorces	Marriages	Divorces
1945	8.6	3.9	12.2	3.5
1946	13.8	5.1	16.4	4.3
1947	11.8	3.6	13.9	3.4
1948	10.0	2.6	12.4	2.8
1949	8.4	2.6	10.6	2.7
1950	9.2	2.5	11.1	2.6
1951	8.2	2.4	10.4	2.5
1952	7.6	2.2	9.9	2.5
1953	7.8	2.4	9.8	2.5
1954	7.3	2.3	9.2	2.4
1955	7.7	2.5	9.3	2.3
1956	7.6	2.2	9.5	2.3
1957	7.1	2.0	8.9	2.2
1958	7.0	1.8	8.4	2.1
1959	7.4	2.1	8.5	2.2
1960	7.8	2.2	8.5	2.2
1961	8.0	2.1	8.5	2.3
1962	8.2	2.2	8.5	2.2
1963	8.5	2.2	8.8	2.3
1964	9.1	2.4	9.0	2.4
1965	9.9	2.5	9.3	2.5
1966	10.1	2.6	9.5	2.5
1967	9.8	3.0	9.7	2.6
1968	10.5	3.0	10.4	2.9
1969	10.7	3.3	10.6	3.2
1970	10.4	3.4	10.6	3.5
1971	10.3	3.5	10.6	3.7
1972	10.5	3.9	11.0	4.1
1973	10.5	4.1[a]	10.9	4.4
1974	9.7	4.4[a]	10.5	4.6
1975	9.1	4.5	10.1	4.9
1976	9.1	4.7	10.0	5.0
1977	9.4	4.7	10.1	5.0
1978	9.6	4.9	10.3[p]	5.2[p]
1979	9.7[p]	4.8[p]	10.5[p]	5.3[p]

SOURCE: Adapted from Michigan Department of Public Health, Michigan Health Statistics, 1977 (Lansing: 1980), Table 4.2 (pre-1978 Michigan data), and special release (1978 and 1979 Michigan data); National Center for Health Statistics, Vital Statistics of the United States, 1972, vol. 3, Marriage and Divorce (Rockville, Md: 1975), Tables 1.5 and 2.2 (pre-1958 U.S. data); and National Center for Health Statistics, Monthly Vital Statistics Report, vol. 27, no. 13 (1958-1978 U.S. data), and vol. 28, no. 12 (1979 U.S. data).
NOTE: Rates are based on marriages and divorces per 1,000 population.
a. estimate.
p. provisional.

TABLE III-20. MARRIAGES IN MICHIGAN, BY ORDER OF MARRIAGE AND AGE OF BRIDE AND GROOM: 1978

Age	Bride, order of marriage						Groom, order of marriage					
	First	Second	Third	Fourth or more	Not stated	Total	First	Second	Third	Fourth or more	Not stated	Total
Under 15	17	0	0	0	0	17	1	0	0	0	0	1
15	175	0	0	0	1	176	1	0	0	0	0	1
16	1,619	1	0	0	2	1,622	50	0	0	0	0	50
17	3,214	12	0	0	5	3,231	373	0	0	0	0	373
18	7,388	64	1	0	15	7,468	2,937	3	0	0	2	2,942
19	8,445	148	3	0	17	8,613	4,905	24	0	0	7	4,936
20-24	30,356	4,237	186	8	37	34,824	32,900	2,109	51	1	52	35,113
25-29	7,412	6,121	732	75	17	14,357	13,026	5,916	514	36	18	19,510
30-34	1,469	4,270	1,018	188	0	6,945	2,996	5,197	952	142	7	9,294
35-39	418	2,376	824	185	1	3,804	797	3,270	916	215	3	5,201
40-44	165	1,475	547	177	1	2,365	297	2,115	704	154	0	3,270
45-49	104	1,053	363	140	1	1,661	183	1,503	526	148	2	2,362
50-54	71	782	283	77	1	1,214	135	1,186	478	139	2	1,940
55-59	51	511	196	51	0	809	92	820	311	74	1	1,298
60-64	32	357	132	35	0	556	71	565	177	73	1	887
65-69	9	276	79	24	0	388	22	363	116	28	0	529
70-74	6	107	51	20	0	184	10	215	81	13	0	319
75 and over	4	58	27	7	0	96	10	204	71	22	0	307
Not stated	1	2	0	0	0	3	0	0	0	0	0	0
TOTAL	60,956	21,850	4,442	987	98	88,333	58,806	23,490	4,897	1,045	95	88,333

SOURCE: Michigan Department of Public Health, special release.

TABLE III-21. BOOK CENSUS OF PATIENTS IN STATE REGIONAL PSYCHIATRIC HOSPITALS, FISCAL YEAR ENDED 30 SEPTEMBER: 1979

Name of institution	Location	Book census, 30 September 1979		
		Residents[a]	Nonresidents[b]	Total
Caro Regional Mental Health Center	Caro	20	7	27
Clinton Valley Center	Pontiac	790	228	1,018
Detroit Psychiatric Institute	Detroit	142	67	209
Hawthorne Center	Northville	137	181	318
Kalamazoo Regional Psychiatric Center	Kalamazoo	808	255	1,063
Lafayette Clinic	Detroit	125	38	163
Metropolitan Regional Psychiatric Hospital	Eloise	170	2	172
Michigan Institute for Mental Health	Dimondale	59	47	106
Newberry Regional Mental Health Center	Newberry	180	4	184
Northville Regional Psychiatric Hospital	Northville	682	74	756
Northville Residential Training Center	Northville	16	7	23
Traverse City Regional Psychiatric Hospital	Traverse City	610	133	743
Ypsilanti Regional Psychiatric Hospital	Ypsilanti	1,089	103	1,192
Center for Forensic Psychiatry	Ann Arbor	127	2	129
TOTAL		4,955	1,148	6,103

SOURCE: Michigan Department of Mental Health, special release.

NOTE: Facilities for mentally ill.
a. In house and on authorized or unauthorized leave.
b. Community living facilities, foster family care, and convalescent status.

TABLE III-22. BOOK CENSUS OF PATIENTS IN CENTERS FOR DEVELOPMENTAL DISABILITIES, FISCAL YEAR ENDED 30 SEPTEMBER: 1979

Name of institution	Location	Book census, 30 September 1979		
		Residents[a]	Nonresidents[b]	Total
Alpine Regional Center for Developmental Disabilities	Gaylord	147	241	388
Caro Regional Mental Health Center	Caro	661	65	726
Coldwater Regional Center for Developmental Disabilities	Coldwater	769	282	1,051
Hillcrest Regional Center for Developmental Disabilities	Howell	347	252	599
Macomb-Oakland Regional Center	Mt. Clemens	152	745	897
Mt. Pleasant Regional Center for Developmental Disabilities	Mt. Pleasant	585	209	794
Muskegon Regional Center for Developmental Disabilities	Muskegon	518	109	627
Newberry Regional Mental Health Center	Newberry	273	32	305
Northville Residential Training Center	Northville	166	45	211
Oakdale Regional Center for Developmental Disabilities	Lapeer	975	205	1,180
Plymouth Center for Human Development	Northville	592	607	1,199
Southgate Regional Center for Developmental Disabilities	Southgate	155	185	340
TOTAL		5,340	2,977	8,317

SOURCE: Michigan Department of Mental Health, special release.
NOTE: Facilities for mentally retarded.
a. In house and on authorized or unauthorized leave.
b. Community living facilities, foster family care, and convalescent status.

TABLE III-23. UTILIZATION OF COMMUNITY HOSPITALS IN MICHIGAN: 1967-1978

Year	Hospitals[a]	Beds	Admissions	Occupancy (percent)	Average daily census
1967	199	32,063	1,104,893	80.6	25,848
1968	198	32,426	1,099,034	81.2	26,339
1969	200	32,802	1,138,246	81.5	26,743
1970	197	33,136	1,149,799	80.4	26,625
1971	199	33,851	1,174,859	79.5	26,928
1972	201	35,464	1,229,295	79.5	28,186
1973	202	36,447	1,266,177	79.5	28,962
1974	211	38,120	1,354,383	79.9	30,447
1975	210	39,089	1,383,654	79.4	31,021
1976	210	39,695	1,394,464	77.5	30,755
1977	212	40,146	1,426,706	76.7	30,812
1978	207	40,097	1,417,078	76.4	30,639

SOURCES: American Hospital Association, Hospital Statistics 1972 through 1979 (Chicago: annually), Table 6 (1979); and American Hospital Association, Hospitals, Journal of the American Hospital Association, Guide Issue, 1966 through 1971 (Chicago: annually).
a. Hospitals accepted for registration by the American Hospital Association; excludes hospital units of institutions.

TABLE III-24. UTILIZATION OF COMMUNITY HOSPITALS IN MICHIGAN, BY STANDARD METROPOLITAN STATISTICAL AREA AND OUTSIDE STANDARD METROPOLITAN STATISTICAL AREAS: 1978

Area	Hospitals[a]	Beds	Admissions	Occupancy (percent)	Average daily census
Nonmetro	79	7,398	249,292	69.7	5,153
Metro	128	32,699	1,167,786	77.9	25,486
Ann Arbor	5	1,921	55,388	71.1	1,365
Battle Creek	8	1,077	34,475	67.2	724
Bay City	3	536	21,974	73.9	396
Detroit	66	18,431	655,096	80.8	14,891
Flint	8	2,508	97,118	78.2	1,962
Grand Rapids	9	2,537	87,659	79.1	2,008
Jackson	2	561	23,301	74.2	416
Kalamazoo-Portage	5	1,182	41,602	74.4	879
Lansing-East Lansing	11	1,687	66,531	69.7	1,176
Muskegon-Muskegon Hgts.-Norton Shores	6	838	28,138	74.0	620
Saginaw	4	1,199	45,466	75.8	909
Toledo	1	222	10,038	63.1	140
TOTAL	207	40,097	1,417,078	76.4	30,639

SOURCE: American Hospital Association, Hospital Statistics, 1979 (Chicago: 1979), Table 6.
a. Hospitals accepted for registration by the American Hospital Association; excludes hospital units of institutions.

TABLE III-25. HEALTH INSURANCE PREMIUMS IN MICHIGAN AND THE UNITED STATES: 1963-1977

(In millions of dollars)

Year	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
1963	296	6,145	301	3,918	598	10,063
1964	326	6,769	334	4,332	660	11,101
1965	360	7,352	360	4,777	720	12,129
1966	378	7,796	388	4,969	766	12,765
1967	402	8,295	410	5,247	812	13,542
1968	427	9,082	465	5,966	893	15,048
1969	477	10,197	580	7,089	1,057	17,286
1970	558	11,546	706	8,439	1,265	19,985
1971	619	12,777	867	10,058	1,487	22,835
1972	673	14,771	994	11,465	1,667	26,236
1973	761	16,104	1,119	12,908	1,880	29,012
1974	821	17,915	1,209	14,523	2,030	32,448
1975	899	21,223	1,301	16,943	2,200	38,176
1976	925	24,502	1,577	19,955	2,502	44,457
1977	1,117	28,676	1,924	23,187	3,041	51,863

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1963-64 through 1979-80 (New York, N.Y.: annually), p. 30.
NOTE: The data refer to insurance company written premiums and earned subscription income of Blue Cross, Blue Shield, and other hospital-medical plans. "Insurance companies" includes premiums for loss of income protection.

TABLE III-26. HEALTH INSURANCE BENEFIT PAYMENTS IN MICHIGAN AND THE UNITED STATES: 1963-1977

(In millions of dollars)

Year	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
1963	215	4,152	279	3,649	495	7,801
1964	244	5,658	305	4,039	550	8,697
1965	273	5,160	335	4,464	608	9,624
1966	295	5,559	365	4,600	661	10,159
1967	320	6,029	403	5,080	723	11,109
1968	338	6,717	446	5,521	785	12,233
1969	389	7,575	505	6,692	895	14,267
1970	474	9,089	699	8,088	1,173	17,177
1971	487	9,497	770	9,372	1,257	18,869
1972	543	10,622	900	10,412	1,444	21,034
1973	582	11,863	999	11,687	1,581	23,550
1974	645	13,636	1,090	13,658	1,735	27,294
1975	723	15,149	1,378	16,575	2,101	31,724
1976	750	20,217	1,519	18,747	2,269	38,964
1977	845	22,113	1,727	20,974	2,572	43,087

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1963-64 through 1979-80 (New York, N.Y.: annually), p. 24.
NOTE: "Insurance companies" includes loss of income benefit payments.

TABLE III-27. NUMBER OF PERSONS UNDER AGE 65 COVERED BY HOSPITAL, SURGICAL, AND REGULAR MEDICAL EXPENSE COVERAGE IN MICHIGAN AND THE UNITED STATES, BY TYPE: 31 DECEMBER 1966-1977

(In thousands of persons)

Year	Hospital expense		Surgical expense		Regular medical expense		Major medical expense[a]	
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1966	7,242	148,589	6,725	137,448	5,967	110,754	--	55,475
1967	7,521	153,768	7,060	142,828	6,529	116,665	--	60,588
1968	7,897	159,335	7,444	147,252	6,822	122,054	--	65,040
1969	8,226	164,383	7,868	153,304	7,453	127,227	--	70,410
1970	8,226	164,210	7,868	153,352	7,453	132,349	--	76,164
1971	7,842	167,588	7,370	154,923	6,945	133,065	--	76,551
1972	8,017	167,019	7,560	155,173	6,899	139,704	2,634	78,154
1973	7,733	156,595	7,446	149,409	7,117	137,896	2,809	86,223
1974	8,017	161,600	7,979	156,800	7,981	149,300	3,082	89,300
1975	8,069	165,400	7,978	158,500	7,835	152,200	3,262	90,100
1976	8,011	164,000	7,798	156,900	7,823	152,900	3,303	91,300
1977	7,993	165,051	7,993	156,050	7,993	149,997	5,592	93,940

SOURCE: Health Insurance Institute, Source Book of Health Insurance Data, 1956-57 through 1979-80 (New York, N.Y.: annually), pp. 16-17.

NOTE: The data refer to the net total of people protected, that is, duplication among persons protected by more than one kind of insuring organization or more than one insurance company policy, providing the same type of coverage has been eliminated. Data presented for those employed in Michigan.

a. Michigan data not available prior to 1972.

TABLE III-28. MEDICAL FACILITIES IN MICHIGAN, BY COUNTY: 1980

County	Hospital[a]		Nursing care facilities		Homes for the aged	
	Number	Beds	Number	Beds	Number	Beds
Alcona	0	0	2	87	0	0
Alger	1	40	1	48	0	0
Allegan	3	156	6	555	1	22
Alpena	1	141	2	153	0	0
Antrim	0	0	1	113	0	0
Arenac	1	81	1	44	0	0
Baraga	1	67	2	73	1	46
Barry	1	92	2	251	1	22
Bay	3	522	6	489	1	17
Benzie	1	40	1	42	0	0
Berrien	6	873	10	860	8	185
Branch	1	138	2	283	1	32
Calhoun	7	877	8	778	3	244
Cass	1	74	2	230	0	0
Charlevoix	2	47	1	73	0	0
Cheboygan	1	129	1	50	0	0
Chippewa	1	184	2	168	1	32
Clare	1	64	2	200	0	0
Clinton	1	76	3	119	0	0
Crawford	1	106	1	18	0	0
Delta	1	127	3	239	3	71
Dickinson	2	131	3	205	0	0
Eaton	2	87	4	399	1	25
Emmet	1	254	2	211	1	70
Genesee	7	2,193	17	1,804	5	298
Gladwin	1	42	1	60	0	0
Gogebic	1	72	3	215	1	48
Grand Traverse	2	376	4	520	0	0
Gratiot	1	136	7	552	1	205
Hillsdale	1	86	2	241	1	74
Houghton	2	213	4	338	2	79
Huron	3	207	1	177	1	16
Ingham	6	1,280	9	1,146	2	337
Ionia	2	133	2	243	0	0
Iosco	1	62	2	184	0	0
Iron	2	73	3	249	1	15
Isabella	1	145	3	309	0	0
Jackson	2	539	9	828	3	98
Kalamazoo	3	947	13	1,384	2	194
Kalkaska	1	21	0	0	0	0
Kent	7	2,304	27	2,634	15	2,234
Keweenaw	0	0	0	0	0	0
Lake	0	0	0	0	0	0

TABLE III-28. MEDICAL FACILITIES IN MICHIGAN, BY COUNTY: 1980 (cont.)

County	Hospital[a]		Nursing care facilities		Homes for the aged	
	Number	Beds	Number	Beds	Number	Beds
Lapeer	1	166	2	253	1	20
Leelanau	1	94	2	86	0	0
Lenawee	5	380	4	375	2	67
Livingston	2	198	2	321	0	0
Luce	1	74	2	61	0	0
Mackinac	2	22	1	60	0	0
Macomb	9	1,595	17	2,574	4	486
Manistee	2	119	2	221	0	0
Marquette	2	419	4	353	2	63
Mason	1	99	2	202	0	0
Mecosta	2	110	1	126	0	0
Menominee	1	82	3	265	0	0
Midland	1	287	4	351	1	30
Missaukee	0	0	0	0	0	0
Monroe	1	222	5	696	0	0
Montcalm	5	396	3	188	1	20
Montmorency	0	0	0	0	0	0
Muskegon	4	748	11	966	4	246
Newaygo	2	119	2	245	0	0
Oakland	10	3,599	34	4,252	6	281
Oceana	2	71	1	113	0	0
Ogemaw	1	92	2	231	0	0
Ontonagon	2	59	2	110	0	0
Osceola	1	100	1	50	0	0
Oscoda	0	0	2	93	0	0
Otsego	1	76	2	154	1	19
Ottawa	3	376	10	970	4	404
Presque Isle	2	112	1	49	0	0
Roscommon	0	0	1	49	0	0
Saginaw	5	1,504	11	1,079	6	198
St. Clair	4	447	4	590	1	40
St. Joseph	2	166	4	369	1	5
Sanilac	3	165	2	127	0	0
Schoolcraft	1	55	1	75	0	0
Shiawassee	1	236	2	230	1	56
Tuscola	2	115	3	278	1	22
Van Buren	2	188	5	406	1	27
Washtenaw	6	1,798	10	1,094	5	374
Wayne, other than Detroit	18	4,495	45	5,863	8	1,005
Detroit	28	8,668	56	7,142	25	1,841
Wexford	1	175	1	218	0	0
TOTAL	220	40,762	439	47,307	132	9,566

SOURCE: Michigan Department of Public Health, January 1980 Directory of Hospitals, Nursing Care Facilities, and Homes for the Aged (Lansing: 1980).
a. Excludes federal hospitals and hospitals licensed by the Department of Mental Health.

TABLE III-29. NUMBER OF SELECTED HEALTH PROFESSIONALS LICENSED IN MICHIGAN, BY COUNTY: AUGUST 1979

County	Physicians		Nurses		Podiatrists	Optometrists	Chiropractors	Pharmacists	Dentists	Dental Hygienists
	Medical	Osteopathic	Practical	Registered						
Alcona	4	0	28	31	0	0	0	7	2	2
Alger	5	0	30	43	0	1	0	5	4	3
Allegan	31	4	237	332	0	6	8	39	20	9
Alpena	35	3	217	176	1	8	3	22	19	10
Antrim	7	4	56	90	0	2	1	10	9	3
Arenac	3	2	60	56	0	1	1	6	5	3
Baraga	5	0	51	58	0	0	1	6	3	1
Barry	22	9	123	243	0	3	3	20	12	8
Bay	106	24	594	773	4	7	7	96	53	28
Benzie	7	1	67	69	0	2	1	15	3	2
Berrien	184	16	354	1,069	4	18	26	118	84	40
Branch	29	8	197	198	2	3	6	22	14	7
Calhoun	149	25	625	1,037	5	20	17	87	73	68
Cass	15	5	89	159	0	3	2	19	11	9
Charlevoix	15	3	63	170	0	3	5	19	10	5
Cheboygan	10	5	53	108	0	3	2	18	7	2
Chippewa	20	4	117	205	0	3	2	18	14	6
Clare	3	8	117	94	0	1	4	16	7	3
Clinton	12	9	135	228	0	5	3	23	19	14
Crawford	9	0	55	58	1	1	1	4	5	0
Delta	36	0	243	201	1	6	4	23	20	9
Dickinson	33	1	200	214	1	5	4	16	17	6
Eaton	19	4	210	361	1	7	12	36	20	23
Emmet	86	0	127	283	1	4	5	28	20	16
Genesee	515	164	1,969	3,089	18	49	51	317	220	242

TABLE III-29. NUMBER OF SELECTED HEALTH PROFESSIONALS LICENSED IN MICHIGAN, BY COUNTY: AUGUST 1979 (cont.)

County	Physicians		Nurses		Podia- trists	Optome- trists	Chiro- practors	Pharma- cists	Dentists	Dental Hygienists
	Medical	Osteo- pathic	Prac- tical	Regis- tered						
Gladwin	7	4	83	78	0	1	2	10	5	5
Gogebic	17	0	121	104	2	2	5	11	9	2
Grand Traverse	128	27	486	665	4	5	10	74	54	39
Gratiot	35	10	276	163	1	6	6	13	15	15
Hillsdale	21	2	148	158	1	6	9	16	14	9
Houghton	28	1	104	289	1	4	1	24	16	14
Huron	21	7	136	233	0	6	4	22	18	7
Ingham	535	125	854	2,299	7	27	28	203	198	193
Ionia	21	9	138	203	0	7	8	30	20	6
Iosco	12	2	77	126	1	1	3	18	13	4
Iron	9	3	96	89	0	3	2	12	12	2
Isabella	41	6	259	201	1	3	2	29	15	16
Jackson	127	23	567	917	5	10	19	91	72	44
Kalamazoo	453	10	857	1,899	7	18	21	225	142	135
Kalkaska	3	1	32	40	0	0	2	5	2	3
Kent	714	98	2,099	3,413	15	50	58	318	287	240
Keweenaw	0	0	5	5	0	0	0	0	0	0
Lake	6	0	20	27	0	0	1	6	5	1
Lapeer	29	26	286	368	2	2	6	33	22	26
Leelanau	8	2	56	100	0	0	1	8	5	5
Lenawee	69	7	343	451	1	10	12	48	41	26
Livingston	40	14	290	596	1	6	7	55	47	24
Luce	16	0	110	81	0	0	0	7	4	0
Mackinac	2	2	31	53	0	0	0	7	5	3
Macomb	534	208	1,648	5,255	61	55	58	467	436	233

TABLE III-29. NUMBER OF SELECTED HEALTH PROFESSIONALS LICENSED IN MICHIGAN, BY COUNTY: AUGUST 1979 (cont.)

County	Physicians		Nurses		Podiatrists	Optometrists	Chiropractors	Pharmacists	Dentists	Dental Hygienists
	Medical	Osteopathic	Practical	Registered						
Manistee	21	5	127	120	1	4	4	21	14	9
Marquette	109	2	399	670	2	4	6	34	41	18
Mason	30	1	125	134	1	2	5	18	11	7
Mecosta	20	7	121	160	0	15	3	48	15	25
Menominee	8	1	93	110	1	1	3	10	9	6
Midland	106	2	234	551	2	6	7	53	44	41
Missaukee	4	1	47	40	0	0	0	7	2	0
Monroe	63	16	273	464	3	4	18	47	36	22
Montcalm	26	20	277	224	1	4	5	30	18	8
Montmorency	1	3	28	29	0	0	0	6	1	1
Muskegon	156	42	749	1,000	6	11	15	115	78	36
Newaygo	16	5	105	149	0	3	6	17	15	5
Oakland	2,282	425	2,591	8,150	82	144	79	1,323	864	727
Oceana	10	2	89	119	1	1	3	6	12	5
Ogemaw	9	4	85	67	0	2	4	17	4	4
Ontonagon	6	1	62	77	0	0	0	5	3	1
Osceola	7	1	108	85	0	1	3	13	5	4
Oscoda	2	1	23	32	0	0	0	7	1	1
Otsego	17	3	50	98	0	2	5	19	11	9
Ottawa	112	12	984	1,117	4	14	25	95	81	47
Presque Isle	2	3	63	63	0	1	3	7	5	0
Roscommon	7	4	65	65	0	1	1	17	7	4
Saginaw	272	44	252	1,505	6	12	11	155	124	115
Sanilac	16	4	125	202	0	4	4	22	13	3
Schoolcraft	7	0	47	54	0	3	1	8	4	0

TABLE III-29. NUMBER OF SELECTED HEALTH PROFESSIONALS LICENSED IN MICHIGAN, BY COUNTY: AUGUST 1979 (cont.)

County	Physicians		Nurses		Podiatrists	Optometrists	Chiropractors	Pharmacists	Dentists	Dental Hygienists
	Medical	Osteopathic	Practical	Registered						
Shiawassee	42	9	222	387	1	8	5	44	25	17
St. Clair	112	9	514	810	2	9	23	96	62	40
St. Joseph	38	6	194	265	2	9	14	28	18	8
Tuscola	23	13	165	263	0	5	7	33	16	11
Van Buren	44	1	220	327	0	3	5	37	26	22
Washtenaw	1,332	21	871	2,980	6	20	21	269	373	189
Wayne	3,701	554	6,676	12,992	136	161	191	1,178	1,278	591
Wexford	31	2	150	149	1	5	3	27	14	9
Out of state	4,117	5	2,768	12,128	46	177	214	1,317	1,112	743
Out of country	339	0	106	1,290	2	0	15	18	32	27
Total	17,324	2,102	34,678	73,230	455	1,022	1,143	7,870	6,502	4,326

SOURCE: Michigan Department of Licensing and Regulation, special release.

HARPER HOSPITAL.

In 1863, Colonel Charles S. Tripler, surgeon U. S. army, and then U. S. medical director, stationed at Detroit, represented to the Government the absolute necessity for the erection of a general hospital at that point for the reception and care of sick and wounded Michigan soldiers, and urging immediate action in the matter.

In the effort Colonel Tripler had the influence and recommendation of the Governor and military authorities of the State, and was at the same time ably aided in his undertaking by Dr. D. O. Farrand, then assistant surgeon, U. S. army, and Colonel George W. Lee, chief quartermaster in Michigan, and stationed at Detroit.

The authority was, after much correspondence and annoying delays, obtained under an order from the Secretary of War, and under the superintendence of Colonel Lee the work on "Harper Hospital" was commenced early in 1864.

It was made up of eleven one-story buildings, with a capacity for eight hundred patients, and costing about sixty thousand dollars, the use of the grounds being given gratis by the "Harper Hospital Association." Much care had been observed in regard to ventilation, drainage, and superior water arrangements. Opening with an exceedingly capable management, it had soon the reputation of being one of the most complete, comfortable, and best regulated hospitals in the West.

In usefulness it added largely to the already extensive preparation made by the Government for the shelter and care of thousands of Michigan men who, by disease or wounds, had been rendered unfit for service in the field.

On its completion, Dr. Farrand was placed in charge, with Drs. W. A. Chandler, Wm. C. Catlin, E. W. Jenks, and G. W. Fitzpatrick as assistants. Dr. Byron Stanton, a surgeon of volunteers, succeeded Dr. Farrand in the spring of 1865, but he remained but a few weeks, as he accepted a position in an asylum for the insane in Ohio.

Dr. Farrand again assumed charge, continuing on duty until June or July following, when at his own request he was transferred to take charge of the hospital at Fort Wayne, near Detroit, then occupied by U. S. troops.

Succeeding Dr. Farrand, Dr. Wynkoop, a surgeon of volunteers from Philadelphia, was placed in charge, remaining until the close of the hospital, in December, 1865.

The buildings were soon after given by the Government to the trustees of the "Harper Hospital," a corporate body, this association having in contemplation the establishment of a hospital for charitable purposes.

In giving the buildings, the Government made a condition that sufficient accommodation should be at all times afforded for a "Soldiers' Home" for invalid and destitute Michigan soldiers and sailors, and since then it has been in part used for that purpose.

The sick and wounded being very numerous at that time, and a transfer of Michigan men from Eastern hospitals being very desirable, to ensure them more care and the attention of their friends at home, the erection of this hospital was accomplished, and while it was accepted by the people of the State as a most generous recognition by the Government of her great claims for consideration, they will never forget the efforts of those gentlemen to secure it, while the soldiers will in all time hold them in most grateful remembrance.

IV. EDUCATION

Data pertaining to education levels, taken from the Census of Population, are estimates based on a 20 percent sample of households and persons living in group quarters. Enrollment data from the 1970 Census of Population are estimated from a 15 percent sample. Ratio estimation procedures were employed to derive these statistics.

The Michigan Department of Education's Michigan Educational Statistics and Fact Book on Higher Education are the sources of most data relating to the educational system in this state. The department publishes numerous other items, among them Bulletins 1012 and 1013.

Many statistics about education for states and the nation are published by the U.S. Office of Education. Data indicating federal support for education are compiled by the Community Services Administration, Executive Office of the President. For the state of Michigan, these data appear as part of Table X-20.

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TABLE IV-1. EDUCATIONAL ATTAINMENT OF PERSONS 25 YEARS OLD AND OLDER IN MICHIGAN AND THE UNITED STATES, BY RACE: CENSUS 1960 AND 1970

Item	1960			1970		
	White	Black[a]	Total	White	Black[a]	Total
			Michigan			
Percentage:						
No school years completed	1.4	2.2	1.5	2.1	6.9	2.6
Elementary:						
1 - 4 years	3.7	10.9	4.3	2.1	6.9	2.6
5 and 6 years	5.3	11.9	5.9	3.6	8.5	4.1
7 years	5.6	8.3	5.8	3.5	5.6	3.7
8 years	19.7	16.1	19.4	13.8	11.3	13.5
9 - 11 years	21.9	25.4	22.2	21.2	29.4	22.1
High school	26.9	16.8	26.0	34.7	25.1	33.7
College:						
1 - 3 years	8.3	5.5	8.1	10.0	6.8	9.7
4 years or more	7.2	2.8	6.7	9.9	4.7	9.4
Median school years completed	11.0	9.1	10.8	12.1	10.6	12.1
			United States			
Percentage:						
No school years completed	1.9	5.6	2.3	1.4	4.1	1.6
Elementary:						
1 - 4 years	4.8	17.8	6.1	3.1	11.5	3.9
5 and 6 years	6.7	14.6	7.5	5.0	11.8	5.7
7 years	6.1	8.8	6.4	4.1	6.4	4.4
8 years	18.1	12.8	17.5	13.1	10.4	12.8
9 - 11 years	19.3	18.7	19.2	18.8	22.8	19.4
High school	25.8	13.8	24.6	32.2	21.4	31.1
College:						
1 - 3 years	9.3	4.4	8.8	11.1	6.4	10.6
4 years or more	8.1	3.5	7.7	11.3	4.8	10.7
Median school years completed	10.9	8.2	10.6	12.1	9.7	12.1

SOURCE: Adapted from Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 46; and Bureau of the Census, U.S. Census of Population: 1970, vol. 1, Characteristics of the Population, United States Summary (Washington, D.C.: 1973), Part 1, section 1, Table 75.

a. Includes other racial minorities.

TABLE IV-2. YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OLDER IN MICHIGAN, BY SEX, FOR WHITE, NEGRO, AND PERSONS OF SPANISH LANGUAGE: CENSUS 1970

Sex and years completed	White		Negro	Total
	Spanish	Total		
Male	24,357	1,977,334	216,655	2,203,979
No school years completed	1,540	19,967	4,257	24,460
Elementary:				
1 - 4 years	2,284	46,583	18,976	66,026
5 - 6 years	2,617	77,614	21,026	99,235
7 years	1,234	79,062	13,305	92,848
8 years	2,404	288,950	25,490	315,603
High school:				
1 - 3 years	4,592	414,154	62,239	478,243
4 years	5,263	599,784	49,145	650,381
College:				
1 - 3 years	2,027	203,168	14,296	218,191
4 years	933	119,404	3,891	124,012
5 or more years	1,463	128,648	4,030	134,980
Median school years completed	10.4	12.1	10.2	12.0
Female	23,206	2,137,869	241,542	2,390,482
No school years completed	1,666	24,298	3,698	28,310
Elementary:				
1 - 4 years	2,005	40,882	13,112	54,438
5 - 6 years	2,048	71,411	18,249	90,353
7 years	1,061	65,754	12,681	78,834
8 years	2,228	278,527	26,185	305,828
High school:				
1 - 3 years	4,715	459,539	74,578	536,237
4 years	6,237	826,506	66,949	896,298
College:				
1 - 3 years	1,788	208,658	16,686	226,261
4 years	738	104,436	5,357	110,829
5 or more years	720	57,858	4,047	63,094
Median school years completed	10.7	12.2	10.9	12.1

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C24, Table 51.

TABLE IV-3. EDUCATIONAL ATTAINMENT AND MEDIAN INCOME AMONG PERSONS 25 YEARS OLD AND OLDER, BY SEX, SURVEY OF INCOME AND EDUCATION, MICHIGAN AND THE UNITED STATES: SPRING 1976

Educational attainment	Michigan				United States			
	Male		Female		Male		Female	
	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]	Number[a] (000)	Median income[b]
Eight years of elementary	227	$ 7,669	210	$ 2,663	5,250	$ 6,932	5,984	$ 2,680
Eight years or less of elementary	405	6,794	395	2,503	11,878	5,699	12,714	2,460
Four years of high exhool	736	13,107	1,132	4,568	17,180	11,914	23,891	4,724
Four years or less of high school	1,174	12,395	1,595	4,370	25,443	10,995	34,212	4,228
Four years or more of college	397	17,307	282	8,175	10,601	16,673	7,402	8,491
Some college	747	15,854	629	6,718	18,793	14,871	16,186	6,769
TOTAL	2,326	12,563	2,619	4,248	56,114	10,952	63,112	4,052

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-26, Number 111 (Washington, D.C.: 1978), Tables 1B and 7B.

NOTE: The Survey of Income and Education was conducted during Spring 1976. Income data pertain to 1975.

a. Includes persons without income.

b. Persons with income only.

TABLE IV-4. NUMBER OF SCHOOLS IN MICHIGAN, BY SPECIFIED TYPE, SELECTED YEARS: 1958-1977

Type of school	1958	1960	1962	1964	1966	1968	1971	1974	1975	1976	1977
Public schools[a]											
Elementary	4,356	4,035	2,962	3,242	3,370	3,362	2,503	2,907	2,852	2,860	2,865
Secondary	832	893	944	1,176	1,130	1,057	1,359	1,111	1,077	1,100	1,054
Combined[d]						61	43	n.a.	22	21	24
Nonpublic schools[c]											
Elementary	696	699	733	733	763	763	700	n.a.	n.a.	n.a.	531
Secondary	224	240	230	292	253	253	170	n.a.	n.a.	n.a.	89
Institutions of higher educ.											
Publicly controlled	23	24	24	25	29	36	42	42	42	42	42
Privately controlled	35	35	39	42	45	51	48	46	47	47	48
Schools of nursing not affiliated with colleges and universities	21	23	22	21	21	20	20	n.a.	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1959 through 1979 (Washington, D.C.: annually), Table 209 (1979).

a. Excluding kindergartens. Secondary includes junior high school.

b. Included in secondary prior to 1968.

c. Excluding kindergartens. Secondary includes junior high school and combined elementary-secondary schools.

n.a.: not available.

TABLE IV-5. STUDENT ENROLLMENT, TEACHERS, STUDENT-TEACHER RATIO, AVERAGE TEACHER SALARY, AND NUMBER OF SCHOOL DISTRICTS IN MICHIGAN, PUBLIC SCHOOLS ONLY, SCHOOL YEARS: 1953-1954 THROUGH 1978-1979

School year	Enrollment[a]	Number of teachers[b]	Student-teacher's ratio	Average teacher's salary	Number of districts
1953-54	1,253,602	43,957	28.5	$ 4,173	4,246
1954-55	1,315,238	47,040	28.0	4,380	3,855
1955-56	1,384,813	49,663	27.9	4,865	3,495
1956-57	1,451,949	53,171	27.3	5,067	2,854
1957-58	1,581,121	55,794	27.2	5,340	2,499
1958-59	1,574,606	58,251	27.0	5,504	2,301
1959-60	1,624,262	60,394	26.9	5,699	2,149
1960-61	1,676,404	63,271	26.5	5,898	1,989
1961-62	1,733,705	66,024	26.3	6,091	1,794
1962-63	1,794,045	68,099	26.3	6,307	1,580
1963-64	1,856,895	69,376	26.8	6,474	1,515
1964-65	1,917,890	72,935	26.3	6,745	1,227
1965-66	1,968,403	76,047	25.9	6,896	993
1966-67	2,033,982	80,637	25.2	7,535	866
1967-68	2,079,704	83,443	24.9	8,238	712
1968-69	2,122,915	87,386	24.3	9,134	648
1969-70	2,164,386	89,049	24.3	10,045	638
1970-71	2,178,746	87,499	24.9	11,034	624
1971-72	2,212,505	89,236	24.8	11,671	608
1972-73	2,193,270	90,499	24.2	12,070	602
1973-74	2,159,966	90,771	23.8	12,852	597
1974-75	2,139,720	88,743	24.1	14,059	590
1975-76	2,127,917	89,847	23.7	15,064	587
1976-77	2,081,936	90,780	22.9	15,426	581
1977-78	2,023,944	90,312	22.4	16,445	579
1978-79	1,965,685	88,652	22.2	18,016	576

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1972 through 1976 (Lansing: annually), Table 13 (1975-1976); Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1953 through 1979, Bulletin 1011 (Lansing: annually), p. 5 (1979); and Michigan Department of Education, special release (for number of teachers and ratio, 1952 through 1966).

a. Membership is defined as the number of students enrolled on the fourth Friday after the opening of the school year.

b. Classroom teachers only after 1967-1968.

TABLE IV-6. NUMBER OF TEACHING POSITIONS, AVERAGE TEACHER'S SALARY, AND PUPIL MEMBERSHIP OF PUBLIC SCHOOLS IN MICHIGAN, BY SIZE OF SCHOOL DISTRICT: 1968-1969 AND 1978-1979

Size of district	Number of districts		Teaching position		Average teacher's salary		Pupil membership, September	
	1968-1969	1978-1979	1968-1969	1978-1979	1968-1969	1978-1979	1968-1969	1978-1979
50,000 and over	1	1	11,036	9,423	$ 9,691	$19,521	294,094	227,286
20,000 - 49,999	9	8	11,586	9,914	9,800	19,559	267,470	231,340
10,000 - 19,999	23	19	14,775	12,130	9,618	19,628	344,768	259,517
5,000 - 9,999	59	59	16,965	18,135	9,387	18,741	399,780	403,958
4,500 - 4,999	14	12	2,640	2,581	8,433	18,398	66,105	56,877
4,000 - 4,499	16	17	2,771	3,225	8,959	17,854	67,539	72,014
3,500 - 3,999	19	21	2,864	3,570	8,844	17,941	71,584	78,462
3,000 - 3,499	28	38	3,783	5,615	8,630	17,611	92,296	124,727
2,500 - 2,999	33	34	3,606	4,258	8,523	16,547	90,449	92,499
2,000 - 2,499	53	57	4,718	5,765	8,321	16,037	117,755	125,660
1,500 - 1,999	72	70	5,044	5,642	8,225	15,698	126,611	121,274
1,000 - 1,499	88	74	4,384	4,366	8,139	14,992	108,047	92,935
500 - 999	76	80	2,314	3,114	7,808	14,192	54,209	62,734
Below 500	157	86	1,001	914	7,008	13,319	22,208	16,402
TOTAL	648	576	87,487	88,652	9,134	18,016	2,122,915	1,965,685

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1968-1969 and 1978-1979, Bulletin 1011 (Lansing: annually) p.5 (1978-1979).

TABLE IV-7. PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP IN MICHIGAN: 1955-1956 THROUGH 1979-1980

School year	Public K-12 membership[a]	Nonpublic K-12 membership[b]	Total membership	Nonpublic school membership as percentage of total membership
1955-56	1,384,813	257,373	1,642,186	15.7
1956-57	1,451,949	272,671	1,724,620	15.8
1957-58	1,518,121	281,967	1,800,088	15.7
1958-59	1,574,606	211,277	1,785,883	11.8
1959-60	1,624,262	298,275	1,922,537	15.5
1960-61	1,676,404	314,770	1,991,174	15.8
1961-62	1,733,705	325,028	2,058,733	15.8
1962-63	1,794,045	340,925	2,134,970	16.0
1963-64	1,856,895	358,765	2,215,660	16.2
1964-65	1,917,890	320,825	2,238,715	14.3
1965-66	1,968,403	361,348	2,329,751	15.5
1966-67	2,033,982	353,444	2,387,426	14.8
1967-68	2,079,704	338,945	2,418,649	14.0
1968-69	2,122,919	323,666	2,446,585	13.2
1969-70	2,164,386	296,309	2,460,695	12.0
1970-71	2,178,746	274,692	2,453,438	11.2
1971-72	2,212,523	223,836	2,436,359	9.2
1972-73	2,193,270	220,284	2,413,554	9.1
1973-74	2,159,966	215,302	2,375,268	9.1
1974-75	2,139,720	210,347	2,350,067	9.0
1975-76	2,127,917	209,466	2,337,383	9.0
1976-77	2,081,936	212,358	2,294,294	9.3
1977-78	2,025,166	209,208	2,234,374	9.4
1978-79	1,966,157	204,059	2,170,216	9.4
1979-80	1,910,437	202,032	2,112,469	9.6

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1979-80 (Lansing: 1979), Table 2, and special release.

a. Fourth Friday following Labor Day membership count; all pupils in membership in grades K-12 on the fourth Friday following Labor Day of each year as defined by rules promulgated by the State Board of Education.

b. The nonpublic K-12 membership figures are unaudited and may include incomplete data.

TABLE IV-8. ENROLLMENT BY GRADES IN MICHIGAN PUBLIC SCHOOLS, AT CLOSE OF SCHOOL YEAR, BY SELECTED YEARS: 1935-1970, AND ON THE FOURTH FRIDAY FOLLOWING LABOR DAY: 1973-1980

Grade	1935-36	1940-41	1945-46	1950-51	1955-56	1960-61	1969-70
K	63,906	69,881	80,960	98,973	146,843	176,441	180,938
1	86,906	77,964	92,982	111,999	141,568	157,219	172,142
2	82,808	74,723	81,199	102,370	135,634	144,642	165,576
3	82,025	75,784	77,698	89,618	114,002	138,874	165,876
4	82,353	77,304	75,016	83,318	96,926	128,975	163,005
5	82,591	77,134	70,828	79,666	96,111	126,077	161,168
6	84,718	78,628	76,102	68,868	79,012	102,493	165,365
7	77,674	77,689	70,637	74,793	98,745	127,169	166,511
8	76,833	76,619	69,870	70,547	86,177	107,113	161,261
9	66,577	74,305	68,237	68,701	81,519	95,730	164,343
10	54,828	67,563	58,592	59,466	71,078	89,906	160,266
11	45,577	56,347	47,005	50,664	61,119	85,896	142,200
12	39,773	50,407	40,067	46,096	51,393	75,383	126,063
Other[a]	23,388	41,985	33,326	28,363	20,848	20,187	69,672
TOTAL	943,867	973,737	935,285	1,043,5[illegible]	1,304,456	1,597,892	2,164,386

	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
K	153,824	155,987	159,981	152,787	136,843	129,592	125,332
1	151,934	147,344	149,484	154,492	149,567	135,997	128,961
2	150,285	146,946	141,795	143,778	148,878	144,113	130,838
3	153,911	146,188	141,906	137,875	139,365	144,565	140,107
4	161,068	151,769	143,911	139,795	135,434	136,680	141,608
5	163,071	159,768	149,672	142,170	137,803	133,776	134,610
6	164,660	162,093	158,018	148,637	141,603	137,098	133,242
7	171,278	166,923	163,788	159,610	149,898	142,851	138,511
8	168,500	170,013	165,012	162,193	157,603	148,293	140,782
9	176,258	175,558	177,307	174,405	171,649	166,411	156,999
10	175,096	173,641	173,314	172,489	166,038	161,592	156,850
11	159,358	158,309	158,655	157,875	155,259	149,912	145,963
12	139,458	141,910	143,365	143,093	139,565	138,931	132,476
Other[a]	71,265	83,271	101,709	92,737	95,661	96,346	104,158
TOTAL	2,159,966	2,139,720	2,127,917	2,081,936	2,025,166	1,966,157	1,910,437

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1979-80 (Lansing: 1979), Table 3, and special release (for 1930-1960 and 1979-80 data).

a. Includes students of elementary and secondary ungraded classes; ungraded special needs and postgraduate. Does not include prekindergarteners.

TABLE IV-9. MICHIGAN NONPUBLIC SCHOOL MEMBERSHIP, BY GRADE: 1971-1972 THROUGH 1979-1980

Grade	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
K	4,214	5,165	5,842	6,871	8,825	9,937	9,882	10,166	11,288
1	16,995	17,127	16,655	16,089	16,910	18,479	17,704	16,479	16,432
2	19,289	18,074	17,746	16,958	16,571	17,415	18,563	17,745	16,436
3	20,087	20,015	18,461	18,046	17,607	17,720	17,565	18,370	17,765
4	21,272	20,509	20,109	18,268	18,135	17,844	17,317	17,389	18,333
5	22,047	21,301	20,756	19,796	18,823	18,602	18,200	17,345	17,502
6	22,193	21,765	21,017	20,222	19,890	19,227	18,758	18,179	17,559
7	21,027	20,798	20,516	19,984	19,562	19,532	18,530	17,925	17,366
8	21,281	20,366	19,961	19,981	19,247	18,949	18,844	17,442	17,226
9	14,529	14,615	14,603	14,697	14,372	14,460	14,522	14,191	13,706
10	13,630	13,583	13,614	13,795	13,577	13,486	13,571	13,408	13,323
11	13,083	12,825	12,807	12,720	12,966	12,898	12,896	12,206	12,612
12	13,220	12,448	12,188	12,139	12,207	12,302	12,328	12,235	12,031
Other[a]	969	1,693	1,027	781	774	655	528	579	453
TOTAL	223,836	220,284	215,302	210,347	209,466	211,506	209,208	203,659	202,032
Change from previous year									
Number	-50,850	-3,552	-4,982	-4,955	-881	2,040	-2,298	-5,549	-1,627
Percent	-18.5	-1.6	-2.3	-2.3	-0.4	1.0	-1.1	-2.7	-0.8

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 3, and special release.

NOTE: Data are unaudited.

a. Does not include prekindergarten students. Includes special education and part-time students.

TABLE IV-10. MICHIGAN NONPUBLIC SCHOOL MEMBERSHIP, BY DENOMINATION: 1979-1980

	Grades K-8	Grades 9-12	Pre-school	Special education	Part-time
Roman Catholic	95,066	35,742	421	203	11
Christian (NUCS)	11,825	5,288	356	68	0
Luth./Mo. Synod	18,204	2,303	1,220	55	0
Luth./Wisc. Synod	3,083	610	0	1	0
Seventh Day Adv.	2,630	1,018	0	1	0
Jewish	927	132	32	0	0
Baptist	4,068	1,594	209	1	0
Christian Science	38	0	7	0	0
Other (priv. endowed)	5,410	1,387	361	42	0
Unaffiliated	2,544	49	1,285	65	0
Mich. Assn. Chr. Sch.	2,301	864	60	0	0
Independent	3,599	2,585	366	6	0
Seventh Day Adv. (Lake Reg. Conf.)	212	100	0	0	0
TOTAL	149,907	51,672	4,317	442	11

SOURCE: Michigan Department of Education, special release.

TABLE IV-11. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1977-1978 AND 1978-1979

County	1977-1978				1978-1979				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1977-78	1978-79
Alcona	1,346	63	0	0	1,319	65	0	0	0	0
Alger	2,322	110	33	3	2,278	112	29	3	1.0	1.3
Allegan	17,694	809	769	40	17,486	829	700	40	4.3	3.8
Alpena	8,349	350	569	28	7,795	302	616	25	6.8	7.3
Antrim	3,961	210	67	3	3,895	201	73	3	1.7	1.8
Arenac	3,573	148	0	0	3,538	154	0	0	0	0
Baraga	2,182	97	155	6	2,129	104	146	7	7.1	6.4
Barry	8,582	360	94	6	8,387	390	84	6	1.1	1.0
Bay	25,208	884	5,598	241	23,275	925	6,054	244	22.0	20.6
Benzie	2,757	112	0	0	2,719	120	0	0	0	0
Berrien	41,008	1,994	4,157	218	39,336	1,946	4,535	223	10.1	10.3
Branch	7,467	333	507	28	7,326	321	422	14	6.8	5.4
Calhoun	31,674	1,562	1,285	84	30,414	1,538	1,220	76	4.1	3.9
Cass	9,152	436	38	3	8,833	435	37	3	.4	.4
Charlevoix	4,848	214	92	6	4,695	226	82	6	1.9	1.7
Cheboygan	4,401	206	392	20	4,282	193	374	18	8.9	8.0
Chippewa	7,077	342	13	1	6,791	340	16	1	.2	.2
Clare	5,530	246	94	4	5,435	260	78	6	1.7	1.4
Clinton	11,874	517	1,128	43	11,709	507	1,010	38	9.5	7.9
Crawford	2,142	87	66	3	2,128	93	45	4	3.1	2.1
Delta	10,009	461	641	28	9,723	441	602	31	6.4	5.8
Dickinson	5,565	244	479	25	5,323	245	469	24	8.6	8.1
Eaton	18,986	835	560	39	18,722	867	611	37	2.9	3.2
Emmet	4,982	250	568	26	4,877	222	572	27	11.3	10.5
Genesee	114,773	4,894	6,947	319	111,402	4,878	6,787	304	6.0	5.7

TABLE IV-11. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1977-1978 AND 1978-1979 (cont.)

County	1977-1978				1978-1979				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1977-78	1978-79
Gladwin	3,962	169	154	8	4,025	174	272	13	3.9	6.3
Gogebic	3,945	198	424	23	3,777	196	426	24	10.7	10.1
Grand Traverse	11,044	464	1,924	132	10,956	473	1,850	128	17.2	14.4
Gratiot	10,721	482	38	3	10,417	475	49	3	.4	.5
Hillsdale	8,913	397	543	42	8,652	408	344	24	6.1	3.8
Houghton	6,822	314	177	9	6,592	316	144	9	2.6	2.1
Huron	8,009	397	811	45	7,755	376	796	43	10.1	9.3
Ingham	60,955	2,782	4,108	217	59,284	2,727	4,109	211	6.7	6.5
Ionia	13,077	584	970	48	12,808	581	998	45	7.4	7.2
Iosco	8,325	369	159	6	7,922	372	156	7	1.9	1.9
Iron	2,719	122	0	0	2,647	125	0	0	0	0
Isabella	7,429	351	757	42	7,144	350	764	43	10.1	9.7
Jackson	31,602	1,399	3,709	173	30,419	1,392	3,687	168	11.7	10.8
Kalamazoo	39,167	1,979	3,624	197	38,352	1,972	3,638	173	9.2	8.7
Kalkaska	2,574	127	45	2	2,557	116	47	0	1.8	1.8
Kent	96,762	4,290	17,304	869	94,671	4,033	16,982	877	17.7	15.2
Keweenaw	27	1	0	0	34	1	0	0	0	0
Lake	974	55	0	0	952	58	0	0	0	0
Lapeer	15,781	630	452	19	15,808	639	477	23	2.9	2.9
Leelanau	2,173	119	358	30	2,143	116	444	30	16.3	17.2
Lenawee	21,299	957	897	61	20,945	960	839	66	4.2	3.9
Livingston	20,719	859	609	24	21,227	921	505	21	2.9	2.3
Luce	1,792	78	8	1	1,708	77	11	1	.5	.6
Mackinac	2,491	126	0	0	2,334	123	0	0	0	0
Macomb	166,466	7,269	12,833	489	159,984	7,031	12,592	539	7.7	7.3

TABLE IV-11. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1977-1978 AND 1978-1979 (cont.)

County	1977-1978				1978-1979				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1977-78	1978-79
Manistee	4,586	206	787	36	4,412	203	749	34	17.0	14.5
Marquette	15,152	767	591	27	14,977	734	566	30	3.9	3.6
Mason	5,633	272	227	12	5,489	269	241	19	4.0	4.2
Mecosta	6,463	275	383	22	6,271	282	368	21	5.9	5.5
Menominee	5,286	256	466	21	5,160	237	465	21	8.8	8.3
Midland	17,184	798	848	44	16,578	749	766	36	4.9	4.4
Missaukee	1,994	86	371	17	2,009	84	358	17	18.5	15.1
Monroe	30,484	1,315	3,509	168	29,806	1,270	3,273	167	11.5	9.9
Montcalm	13,626	624	624	45	13,541	640	618	42	4.6	4.4
Montmorency	1,341	64	25	4	1,233	64	89	4	1.9	6.7
Muskegon	37,709	1,822	3,170	159	35,839	1,722	3,381	163	8.4	8.6
Newaygo	8,459	357	444	23	8,374	363	430	24	5.2	4.9
Oakland	221,135	10,267	24,862	1,365	214,284	9,907	24,818	1,407	11.2	10.4
Oceana	4,419	196	78	4	4,255	205	88	4	1.8	2.0
Ogemaw	2,763	131	202	9	2,708	126	205	9	7.3	7.0
Ontonagon	2,825	150	0	0	2,606	141	0	0	0	0
Osceola	5,683	244	104	7	5,526	236	117	7	1.8	2.1
Oscoda	1,401	67	52	5	1,360	73	72	5	3.7	5.0
Otsego	3,854	162	738	33	3,740	172	743	31	19.0	16.6
Ottawa	30,731	1,451	7,158	330	30,367	1,441	7,133	329	23.0	19.0
Presque Isle	3,152	131	636	25	3,017	134	609	31	20.0	16.8
Roscommon	3,409	146	195	8	3,395	153	135	6	5.7	3.8
Saginaw	53,363	2,367	7,179	289	51,610	2,415	7,006	312	13.4	12.0
St. Clair	31,877	1,429	1,797	96	31,540	1,467	1,546	82	5.6	4.7
St. Joseph	13,268	652	432	30	12,938	631	408	26	3.3	3.1

TABLE IV-11. MICHIGAN PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP AND TEACHING POSITIONS, BY COUNTY: 1977-1978 AND 1978-1979 (cont.)

County	1977-1978				1978-1979				Nonpublic membership as a percentage of total	
	Public		Nonpublic		Public		Nonpublic			
	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	Pupils	Teachers	1977-78	1978-79
Sanilac	10,146	438	26	3	9,925	468	26	3	.3	.3
Schoolcraft	1,812	79	247	13	1,616	76	240	9	13.5	12.9
Shiawassee	19,094	830	1,013	61	18,882	817	941	51	5.3	4.7
Tuscola	15,964	716	1,332	53	15,644	700	1,072	41	8.3	6.4
Van Buren	17,790	799	731	47	17,462	815	529	33	4.1	2.9
Washtenaw	45,813	2,235	3,429	228	44,880	2,163	3,142	195	7.5	6.5
Wayne	478,801	20,450	75,935	3,551	463,889	19,936	73,957	3,541	15.7	13.8
Wexford	5,537	248	205	11	5,422	233	199	11	3.7	3.5
TOTAL	2,023,944	90,312	209,208	9,018	1,965,685	88,652	207,982	10,299	9.4	9.6

SOURCE: Michigan Department of Education, 1977-78 Summary of Expenditure Data for Michigan Public Schools, Bulletin 1013 (Lansing: 1979), pp. 1 - 51, 1978-79 Summary of Expenditure Data for Michigan Public Schools, Bulletin 1013 (Lansing: 1980), pp. 1 - 55, 1978-79 Michigan Nonpublic Schools Educational Statistics, Table IX, pp. 8 - 12, and special release.

TABLE IV-12. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Alcona	5	0	2	3	1,322	1,322	10	.8
Alger	181	6	3	4	2,034	2,228	194	8.7
Allegan	122	211	44	572	16,334	17,283	949	5.5
Alpena	15	11	14	10	7,694	7,744	50	.6
Antrim	67	1	10	17	3,799	3,894	95	2.4
Arenac	30	1	10	41	3,432	3,514	82	2.3
Baraga	333	0	0	2	1,762	2,097	335	16.0
Barry	15	10	29	41	8,002	8,097	95	1.2
Bay	431	283	85	828	21,170	22,797	1,627	7.1
Benzie	70	18	6	69	2,559	2,702	163	6.0
Berrien	381	8,836	133	635	29,202	39,187	9,985	25.5
Branch	7	14	17	21	7,017	7,076	59	8.3
Calhoun	70	3,859	125	499	25,410	29,963	4,553	15.2
Cass	47	1,073	26	138	7,488	8,772	1,284	14.6
Charlevoix	92	7	16	0	4,544	4,659	115	2.5
Cheboygan	143	4	6	4	4,115	4,272	157	3.7
Chippewa	1,047	10	31	6	5,479	6,573	1,094	16.6
Clare	16	1	2	12	5,345	5,376	31	.6
Clinton	49	13	24	211	11,376	11,673	297	2.5
Crawford	477	1	2	8	1,568	2,056	488	23.7
Delta	483	5	20	25	8,603	9,136	533	5.8
Dickinson	2	2	8	0	5,046	5,058	12	.2
Eaton	41	63	69	184	18,064	18,421	357	1.9
Emmet	242	13	17	4	4,675	4,951	276	5.6
Genesee	1,898	24,123	490	1,729	81,901	110,141	28,240	25.6

TABLE IV-12. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Gladwin	22	2	7	28	3,885	3,944	59	1.5
Gogebic	163	3	10	7	3,338	3,521	183	5.2
Grand Traverse	69	10	44	50	10,543	10,716	173	1.6
Gratiot	19	7	10	410	9,823	10,269	446	4.3
Hillsdale	5	14	6	42	8,409	8,476	67	.8
Houghton	35	7	34	10	6,508	6,594	86	1.3
Huron	1,324	6	25	83	6,326	7,764	1,438	18.5
Ingham	396	6,348	594	3,262	46,614	57,214	10,600	18.5
Ionia	14	12	24	260	12,169	12,479	310	2.5
Iosco	40	108	85	36	7,450	7,719	269	3.5
Iron	24	6	14	7	2,543	2,594	51	2.0
Isabella	151	38	34	76	6,710	7,009	299	4.3
Jackson	319	2,022	133	242	26,639	29,355	2,716	9.3
Kalamazoo	102	4,984	260	490	32,618	38,454	5,836	15.2
Kalkaska	10	4	7	8	2,354	2,383	29	1.2
Kent	520	9,667	528	1,954	71,101	83,770	12,669	15.1
Keweenaw	0	0	0	0	24	24	0	0
Lake	1	405	0	0	546	952	406	42.6
Lapeer	16	29	34	358	15,246	15,683	437	2.8
Leelanau	812	4	12	15	1,301	2,144	843	39.3
Lenawee	21	145	111	1,431	19,172	20,880	1,708	8.2
Livingston	674	39	64	89	20,115	20,981	866	4.1
Luce	198	1	1	1	1,512	2,239	727	32.5
Macomb	2,239	2,506	1,053	823	152,919	159,540	6,621	4.2

TABLE IV-12. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Manistee	61	11	22	102	4,132	4,328	196	4.5
Marquette	203	136	108	47	14,152	14,646	494	3.4
Mason	97	29	23	180	5,108	5,437	329	6.1
Mecosta	73	90	9	30	6,071	6,273	202	3.2
Menominee	21	3	13	15	5,218	5,270	52	1.0
Midland	45	108	138	131	16,124	16,546	422	2.6
Missaukee	0	0	7	0	2,002	2,009	7	.3
Monroe	215	657	53	426	27,845	29,196	1,351	4.6
Montcalm	27	46	40	224	13,090	13,427	337	2.5
Montmorency	7	0	1	23	1,232	1,263	31	2.5
Muskegon	489	6,119	109	758	27,724	35,199	7,475	21.2
Newaygo	23	92	26	248	7,872	8,261	389	4.7
Oakland	1,564	13,033	1,960	2,526	191,269	210,352	19,083	9.1
Oceana	49	8	7	369	3,776	4,209	433	10.3
Ogemaw	25	0	6	8	2,647	2,686	39	1.5
Ontonagon	115	2	3	0	2,399	2,519	120	4.8
Osceola	42	5	9	18	5,423	5,497	74	1.3
Oscoda	9	0	0	4	1,353	1,366	13	1.0
Otsego	14	2	6	7	3,570	3,599	29	.8
Ottawa	156	128	170	1,336	27,721	29,511	1,790	6.1
Presque Isle	1	2	6	1	2,998	3,008	10	.3
Roscommon	7	0	2	1	3,392	3,402	10	.3
Saginaw	502	11,120	154	3,449	36,126	51,351	15,225	29.6
St. Clair	379	872	98	418	28,930	30,697	1,767	5.8
St. Joseph	6	362	56	61	12,019	12,504	485	3.9

TABLE IV-12. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS, BY COUNTY: 29 SEPTEMBER 1978 (cont.)

County	Native American	Black	Asian American	Latino	Other white	Total	Minority total	
							Number	As a percentage of enrollment
Sanilac	201	2	16	336	9,292	9,847	555	5.6
Schoolcraft	411	1	4	1	1,131	1,548	417	26.9
Shiawassee	83	11	46	176	18,491	18,807	316	1.7
Tuscola	78	61	20	300	15,030	15,489	459	3.0
Van Buren	98	1,718	29	572	14,766	17,183	2,417	14.1
Washtenaw	104	6,519	697	483	36,608	44,411	7,803	17.6
Wayne	1,747	204,275	2,925	5,590	238,270	452,807	214,537	47.4
Wexford	10	3	15	17	5,293	5,338	45	.8
TOTAL	21,025	310,347	11,058	32,606	1,548,385	1,923,421	375,036	19.5

SOURCE: Michigan Department of Education, special release.

TABLE IV-13. RACIAL-ETHNIC DISTRIBUTION OF PUPILS IN ALL MICHIGAN PUBLIC SCHOOLS: FALL 1969-1977

School year	Native American		Black		Asian American		Latino		Other white		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
1969-1970	4,881	.2	283,909	13.2	4,109	.2	28,051	1.3	1,823,817	85.0	2,144,767
1970-1971	4,982	.2	291,394	13.4	4,302	.2	28,196	1.3	1,851,192	84.9	2,180,066
1971-1972	11,713	.5	298,125	13.5	4,653	.2	31,239	1.4	1,862,328	84.3	2,208,058
1972-1973	5,776	.3	306,922	14.1	4,855	.2	31,735	1.5	1,833,559	84.0	2,182,847
1973-1974	7,197	.3	305,132	14.3	5,203	.2	32,038	1.5	1,789,026	83.7	2,138,596
1974-1975	10,569	.5	302,612	14.4	5,851	.3	32,362	1.6	1,748,872	83.3	2,100,536
1976-1977	21,571	1.1	313,91[illegible]	15.4	8,416	.4	32,709	1.6	1,666,004	81.6	2,042,613
1977-1978	19,279	1.0	311,7[illegible]	15.7	9,556	.5	32,710	1.6	1,609,605	81.2	1,982,936
1978-1979	21,025	1.1	310,347	16.1	11,058	.6	32,606	1.7	1,548,385	80.5	1,923,421

SOURCE: Michigan Department of Education, special release.

TABLE IV-14. PUBLIC HIGH SCHOOL DROPOUTS IN MICHIGAN: 1969-1970 THROUGH 1976-1977

School year	9-12 grade adjusted public school membership[a]	9-12 grade public school dropouts[b]	Annual dropout rate (percent)
1969-70	601,621	40,610	6.8
1970-71	619,948	37,339	6.0
1971-72	627,872	40,443	6.4
1972-73	639,776	41,354	6.5
1973-74	637,231	43,666	6.9
1974-75	636,584	37,248	5.9
1975-76	631,822	37,967	6.0
1976-77	622,685	39,216	6.3

SOURCE: Michigan Department of Education, Public High School Dropouts in Michigan, 1975-76 (Lansing: 1977), Table A, and special release.

a. Figure obtained by subtracting involuntary losses during the twelve-month period covered in the survey (for example, transfers to other schools, student deaths, illness or injury affecting attendance through the close of school, commitment to mental health institutions) from membership figures which included all students in membership on fourth Friday following Labor Day, plus all entries, registrations, returns, and/or transfers from other schools which occurred during the twelve-month period covered in the survey.

b. Annual dropouts include all students removed from the school membership roll prior to graduation for any reason other than involuntary losses without provisions being made to transfer to another school which would provide courses leading to the completion of a high school education during the twelve-month period covered in the survey.

TABLE IV-15. PUBLIC HIGH SCHOOL GRADUATES IN MICHIGAN AND GRADUATES ENROLLED IN POSTSECONDARY EDUCATIONAL INSTITUTIONS: 1974-1979

Year	Public high school graduates[a]	Graduates enrolled in two- or four-year degree granting institutions		Graduates enrolled in nondegree granting institutions[b]	
		Number	Percent	Number	Percent
1974	132,624	54,130	40.8	6,199	4.7
1975	135,509	59,094	43.6	6,826	5.0
1976	135,162	55,923	41.4	6,330	4.7
1977	135,337	54,243	40.1	6,540	4.2
1978	132,759	54,349	40.9	5,355	4.0
1979	130,588	54,150	41.5	5,370	4.1

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1978-79 (Lansing: 1979), Table 9, and special release.

a. Includes January-February, June, and August graduates.

b. Includes trade, technical, and vocational business schools.

TABLE IV-16. ANNUAL DROPOUT RATES, BY SIZE OF SCHOOL DISTRICT, SEX, AND GRADE: 1972-1973, 1973-1974, 1974-1975, AND 1975-1976

Item	1972-1973	1973-1974	1974-1975	1975-1976
	By size of school district			
50,000 and over	11.95%	14.77%	12.83%	14.42%
20,000 - 49,999	6.58	6.46	6.62	6.13
10,000 - 19,999	6.14	6.51	4.95	5.16
5,000 - 9,999	5.56	6.08	5.03	5.20
4,500 - 4,999	5.57	5.68	4.09	3.97
4,000 - 4,499	5.63	5.65	5.41	5.18
3,500 - 3,999	6.46	6.31	6.36	6.06
3,000 - 3,499	5.99	5.54	4.94	5.10
2,500 - 2,999	5.30	5.70	4.94	5.26
2,000 - 2,499	5.36	5.24	4.49	4.70
1,500 - 1,999	5.03	5.34	4.61	4.81
1,000 - 1,499	5.04	4.94	4.03	4.48
500 - 999	4.17	4.61	3.97	4.25
Below 500	3.85	3.86	3.25	2.76
	By sex and grade			
Grade 9				
Male	3.67	3.97	3.47	3.74
Female	2.57	2.68	2.48	2.61
Grade 10				
Male	8.47	8.94	7.67	7.79
Female	6.21	6.66	6.01	5.95
Grade 11				
Male	10.11	10.32	8.54	9.18
Female	7.83	8.30	7.13	7.04
Grade 12				
Male	7.93	8.37	6.75	6.99
Female	5.48	5.87	5.07	5.02
Grades 9-12				
Male	7.42	7.81	6.55	6.87
Female	5.48	5.87	5.13	5.12
TOTAL	6.46	6.85	5.85	6.01

SOURCE: Michigan Department of Education, Public High School Dropouts in Michigan, 1973-74 (Lansing: 1975), Table 4; and Michigan Department of Education, Public High School Dropouts in Michigan, 1974-75 and 1975-76 (Lansing: 1977), Tables III and IV.

TABLE IV-17. MICHIGAN NONPUBLIC SCHOOL HIGH SCHOOL GRADUATES BY DENOMINATION: 1977-1978 AND 1978-1979

	Male		Female		Total	
	1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
Roman Catholic	4,263	4,690	4,849	4,797	9,112	9,487
Christian	631	718	747	729	1,378	1,447
Lutheran/Missouri Synod	183	206	213	200	396	406
Lutheran/Wisconsin Synod	55	48	73	51	128	99
Seventh Day Adventist	124	114	128	145	252	259
Jewish	1	5	30	25	41	30
Baptist	124	127	112	136	236	263
Christian Science	0	0	0	0	0	0
Other	114	114	144	123	158	237
Unaffiliated	2	0	1	0	3	0
Mich. Assn. Chr. Sch.	63	64	97	84	160	148
Independent	309	365	341	330	650	695
Seventh Day Adventist (Lake Region Conf.)	7	6	7	5	14	11
TOTAL	5,876	6,457	6,742	6,625	12,618	13,082

SOURCE: Michigan Department of Education, special release.

TABLE IV-18. PUBLIC VOCATIONAL EDUCATION ENROLLMENTS IN MICHIGAN, BY PROGRAM TYPE AND LEVEL: 1973-1974 THROUGH 1977-1978

Program type and level	1973-1974	1974-1975[a]	1975-1976	1976-1977	1977-1978
Agriculture					
Secondary	14,236	14,022	14,424	14,912	14,406
Postsecondary[b]	1,137	1,302	740	1,392	754
Adult	397	442	248	294	387
Total	15,770	15,766	15,412	16,598	15,547
Distributive education					
Secondary	20,684	20,450	20,529	21,790	20,131
Postsecondary[b]	2,770	3,350	9,647	10,301	9,535
Adult	18,619	16,615	13,182	11,811	896
Total	42,073	40,415	43,358	43,902	30,562
Health					
Secondary	6,815	7,803	7,813	8,727	8,164
Postsecondary[b]	12,739	17,823	19,603	22,012	13,793
Adult[c]	3,811	3,938	1,612	4,314	4,091
Total	23,365	29,564	29,028	35,053	26,048
Home Economics					
Consumer and homemaking					
Secondary	89,385	86,556	78,266	91,414	91,295
Postsecondary[b]	0	0	694	272	0
Adult	2,404	3,467	1,757	728	4,510
Total	91,789	90,023	80,717	92,414	95,805
Wage earning					
Secondary	11,564	11,597	11,121	11,995	13,523
Postsecondary[b]	573	741	1,006	1,018	0
Adult	535	486	475	153	808
Total	12,652	12,824	12,602	13,166	14,331
Office education					
Secondary	25,041	22,603	24,866	23,971	24,335

TABLE IV-18. PUBLIC VOCATIONAL EDUCATION ENROLLMENTS IN MICHIGAN, BY PROGRAM TYPE AND LEVEL: 1973-1974 THROUGH 1977-1978 (cont.)

Program type and level	1973-1974	1974-1975[a]	1975-1976	1976-1977	1977-1978
Office education (cont.)					
Postsecondary[b]	22,294	27,099	36,065	40,792	32,538
Adult	14,113	13,633	10,040	17,396	13,394
Total	61,448	63,335	69,971	82,159	70,267
Technical education					
Secondary	0	0	0	0	0
Postsecondary[b]	11,109	15,227	23,491	18,811	25,694
Adult[c]	7,367	5,404	1,195	6,242	117
Total	18,476	20,631	24,686	25,053	25,811
Trade and industrial education					
Secondary	39,897	40,143	46,356	47,547	48,471
Postsecondary[b]	16,524	14,257	26,879	23,928	14,617
Adult[c]	59,001	57,870	26,299	36,035	38,172
Total	115,422	112,270	99,534	107,510	101,260
TOTAL	380,995	384,828	375,308	415,855	379,631

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 28, and special release.

NOTE: These statistics cover only enrollment in public institutions. The Michigan Department of Education, the Michigan Department of Licensing and Regulation, and other state agencies license private occupational training schools which are not included here.

a. Does not include 15,673 disadvantaged and handicapped students (13,799 secondary, 1,141 postsecondary, and 733 adult) who were served by public schools because the occupational areas of these students were not known. These special needs students were, however, included in the enrollments shown for prior years.

b. Postsecondary enrollment includes both full-time and part-time students.

c. Includes apprenticeship students.

TABLE IV-19. ADULT EDUCATION PROGRAMS IN MICHIGAN: 1968-1969 THROUGH 1977-1978

Participants in adult basic education (headcount)[a]		Persons who received GED certificates[b]	
School year		Calendar year	
1968-69	13,511	1969	2,250
1969-70	15,409	1970	4,374
1970-71	18,671	1971	6,683
1971-72	35,618	1972	7,784
1972-73	42,990	1973	8,623
1973-74	49,439	1974	10,350
1974-75	54,816	1975	10,000
1975-76	81,409	1976	10,937
1976-77	112,889	1977	8,300
1977-78	107,392	1978	9,848

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-1978 (Lansing: 1978), Table 29, and special release.

a. A program for a person, 16 years of age and older, who functions at less than an eighth grade level in reading, writing, and arithmetic. Figures are based on reports of the school districts receiving federal funds under the Adult Education Act as amended (Public Law 91-230) and as reported for state school aid.

b. Persons who received General Educational Development (GED) certificates from the Michigan State Department of Education. Some Michigan local educational agencies are also issuing GED certificates. GED is a certificate which indicates the achievement of high school equivalency.

TABLE IV-20. PUBLIC SCHOOL STAFF IN MICHIGAN, 1977-1978 THROUGH 1979-1980

(Full-time equivalent)

Staff category	1977-1978	1978-1979	1979-1980
Instructional staff			
Professional			
Classroom teachers	92,977	90,686	89,840
Other teachers	672	843	632
Attendance personnel	219	232	257
Social workers	765	767	804
Guidance staff	3,093	3,063	3,040
Health personnel	395	407	447
Psychological staff	462	493	532
Speech and audiology	775	703	912
Other pupil services	407	395	584
Consultants	1,276	1,167	1,255
Supervision and direction	905	833	881
Librarians	1,846	1,845	1,804
Other staff services and audio-visual	201	232	230
Nonprofessional			
Teacher aides	10,882	11,426	11,839
Other	669	1,111	1,040
Library aides	1,596	1,620	1,489
Secretary-clerical aides	3,256	2,772	2,571
Other aides	1,190	1,293	1,131
Other instructional support	408	269	297
TOTAL	121,974	120,157	119,585
Noninstructional staff			
Professional			
Executive administration	1,545	1,588	1,492
Fiscal service staff	580	588	560
Data processing staff	115	113	122
Principals	3,369	3,358	3,270
Assistant principals	1,479	1,442	1,445
Other professionals	898	1,056	993
Nonprofessional			
School food service staff	12,428	12,904	12,447
Transportation staff	12,288	12,204	12,316
Operation and maintenance staff	17,575	17,760	17,688
Data processing staff	308	251	302
Secretary and clerical	9,233	9,507	9,841
Other	2,497	2,034	2,019
TOTAL	62,315	62,745	62,495
GRAND TOTAL	184,289	182,902	182,080

SOURCE: Michigan Department of Education, special release.

TABLE IV-21. NUMBER OF TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS, BY ASSIGNMENT CATEGORY: 1975-1976 THROUGH 1978-1979

Category	1975-76	1976-77	1977-78	1978-79
English	7,455	7,371	7,214	7,099
Journalism	400	360	329	308
Speech	519	493	473	477
Reading	2,025	2,182	2,288	2,397
Language arts	722	751	861	869
Economics	149	139	134	123
Geography	490	478	455	434
History	2,126	2,085	2,025	1,978
Political science	416	392	381	374
Psychology	146	151	163	170
Sociology	189	179	173	173
Anthropology	9	10	11	12
Cultural studies	20	17	12	11
Behavior studies	9	12	12	11
Social science	4,537	4,542	4,452	4,389
Biology	1,191	1,186	1,169	1,153
Chemistry	543	526	519	524
Physics	360	344	337	325
Geology-earth science	169	164	165	162
Astronomy	6	7	10	10
Science	3,918	3,864	3,712	3,616
Mathematics	6,311	6,206	6,172	6,145
French	640	593	587	571
German	241	239	232	237
Latin	91	82	75	73
Russian	6	6	7	4
Spanish	785	747	744	731
Other	25	21	26	25
Italian	1	1	1	1
Polish	1	--	--	1
Hebrew	--	1	3	3
Bilingual French	--	--	2	5
Bilingual Russian	--	2	2	2
Bilingual Spanish	26	70	125	176
Bilingual Italian	--	--	1	1
Bilingual Arabic	5	5	23	23
Bilingual other	8	9	15	21

TABLE IV-21. NUMBER OF TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS, BY ASSIGNMENT CATEGORY: 1975-1976 THROUGH 1978-1979 (cont.)

Category	1975-76	1976-77	1977-78	1978-79
Humanities	28	30	19	24
Early childhood education	133	155	134	158
Music education	3,423	3,244	3,262	3,280
Art	2,367	2,471	2,464	2,461
Health	256	258	264	276
Physical education	3,909	3,864	3,903	3,878
Recreation	17	21	21	20
Dance	5	5	10	8
Health and physical education	1,398	1,330	1,329	1,340
Driver and safety education	179	191	194	202
Library science	1,734	1,599	1,537	1,500
Adult education	185	118	134	277
Environmental studies	49	48	52	48
Nursery education	142	169	157	187
Counselor	3,158	3,108	3,173	3,146
Occupational therapy	144	206	221	275
Media specialist	286	372	410	416
Other	1,516	1,529	1,682	1,762
School nurse	--	282	298	287
Fine arts	48	49	53	47
Academic study of religion	2	2	2	1
Philosophy	18	12	10	9
Elementary grades	39,083	37,551	36,870	36,345
Junior high grades	1,979	1,916	2,024	2,277
Special Education				
Mentally handicapped	2,483	2,921	3,007	3,079
Speech correction	1,230	1,416	1,444	1,500
Orthopedically handicapped	221	279	285	288
School social worker	948	931	942	981
Emotionally disturbed	1,131	1,320	1,456	1,632
Diagnostician	197	176	157	144
Psychologist	401	475	532	564
Homebound and/or Hospital	154	176	166	165
Consultant-physically impaired	139	125	127	113
Education of the blind	88	142	155	160
Education of the deaf	377	452	467	471
Learning disabled	707	995	1,296	1,639
Teaching trainables	521	549	527	556
Consultant for mentally handicapped	218	217	223	243

SOURCE: Michigan Department of Education, special release.

TABLE IV-22. MICHIGAN NONPUBLIC SCHOOL INSTRUCTIONAL PERSONNEL SUMMARY: 1979-1980

	K-8 instructional personnel				9-12 instructional personnel				Total, K-12	
	Teachers	Admin-istrators	Other	Total	Teachers	Admin-istrators	Other	Total	Teachers	Total staff
Roman Catholic	3,489	328	190	4,007	1,749	97	178	2,024	5,238	6,031
Christian (NUCS)	530	38	21	589	244	11	13	268	774	857
Luth./Mo. Synod	753	41	12	806	108	6	8	122	861	928
Luth./Wisc. Synod	145	4	0	149	35	3	1	39	180	188
Seventh Day Adv.	148	6	8	162	82	6	0	88	230	250
Jewish	51	4	1	56	18	5	0	23	69	79
Baptist	159	17	38	214	104	9	19	132	263	346
Christian Science	3	1	1	5	0	0	0	0	3	5
Other	278	43	44	365	128	19	11	158	406	523
Unaffiliate	152	26	56	234	3	0	1	4	155	238
Mich. Assn. Chr. Schools	79	3	4	86	62	5	1	68	141	154
Independent	313	12	21	346	286	22	17	325	599	671
Seventh Day Adv. (Lake Reg. Conf.)	8	0	0	8	11	1	0	12	19	20
TOTAL	6,108	523	396	7,027	2,830	184	249	3,263	8,938	10,290

SOURCE: Michigan Department of Education, special release.

TABLE IV-23. RANKING OF MICHIGAN COUNTIES ACCORDING TO PUBLIC AND PRIVATE SCHOOL MEMBERSHIP AS A PERCENTAGE OF TOTAL POPULATION: 1978-1979

County	Percentage 1977-78	Percentage 1978-79	County	Percentage 1977-78	Percentage 1978-79
Montcalm	30.3	31.1	Oakland	22.5	23.7
Osceola	31.3	31.0	Crawford	23.6	23.6
Otsego	27.2	30.7	Gladwin	22.4	23.6
Tuscola	29.3	30.2	Clare	24.2	23.5
Van Buren	28.6	28.8	Livingston	24.0	23.4
Shiawassee	27.5	28.1	Ingham	22.7	23.4
Ionia	26.7	27.9	Clinton	22.1	23.3
Iosco	27.8	26.8	Alger	23.7	23.3
Baraga	26.0	26.8	Manistee	21.1	23.2
Newaygo	26.3	26.7	Cheboygan	22.0	23.0
Gratiot	27.0	26.5	Mason	22.4	23.0
Genesee	25.7	26.2	Jackson	21.4	22.8
Grand Traverse	23.6	26.1	Dickinson	22.0	22.5
Berrien	24.2	26.1	Calhoun	22.6	22.5
Arenac	26.3	26.0	Wayne	19.9	22.5
Delta	25.1	25.9	Chippewa	19.6	22.2
Saginaw	23.6	25.8	Hillsdale	22.1	22.0
St. Joseph	25.9	25.8	Roscommon	21.6	21.9
Presque Isle	22.5	25.7	Mackinac	23.0	21.4
Benzie	26.0	25.7	Gogebic	19.6	21.2
Kent	22.6	25.6	Menominee	20.3	21.2
Alpena	25.2	25.3	Marquette	20.8	20.8
Monroe	23.6	25.1	Oscoda	22.0	20.8
Lenawee	24.8	25.0	Oceana	21.1	20.6
Sanilac	25.8	25.0	Schoolcraft	20.3	20.4
Emmet	23.3	25.0	Kalamazoo	19.2	20.4
Ottawa	21.2	25.0	Kalkaska	23.4	20.2
Macomb	24.4	24.8	Branch	19.7	20.1
Ontonagon	25.7	24.8	Barry	20.3	19.8
Midland	24.9	24.8	Leelanau	16.9	19.6
Wexford	24.8	24.8	Cass	20.1	19.5
Muskegon	23.8	24.7	Mecosta	18.6	19.1
St. Clair	24.2	24.7	Washtenaw	18.3	19.1
Allegan	24.1	24.5	Houghton	18.3	18.5
Charlevoix	24.8	24.5	Ogemaw	18.1	18.2
Missaukee	21.4	24.4	Iron	18.6	18.1
Lapeer	24.5	24.4	Montmorency	18.4	17.4
Antrim	24.8	24.3	Isabella	14.6	15.3
Bay	21.1	24.2	Alcona	14.8	14.3
Luce	24.6	23.9	Lake	13.8	13.4
Huron	22.4	23.8	Keweenaw	1.1	1.5
Eaton	24.0	23.8	Michigan	24.3	23.7

SOURCE: Adapted from Michigan Department of Education and Michigan Department of Management and Budget, special release.

TABLE IV-24. GENERAL FUND REVENUE SOURCES AND CURRENT OPERATING EXPENDITURES FOR PUBLIC SCHOOLS IN MICHIGAN: 1967-1968 THROUGH 1978-1979

School year	Revenues					Total current operating expenditures ($000)	Per pupil current operating expenditures
	Local ($000)	State ($000)	Federal ($000)	Other[a] ($000)	Total[b] ($000)		
1967-68	681,337	554,838	58,852	4,301	1,299,328	1,239,753	$ 596.11
1968-69	818,859	610,972	66,806	4,634	1,501,272	1,391,736	655.58
1969-70	938,595	684,623	63,715	5,005	1,691,943	1,573,119	726.82
1970-71	1,037,042	754,799	81,034	5,534	1,878,408	1,790,120	821.63
1971-72	1,148,771	798,505	102,418	4,824	2,054,519	1,935,035	874.59
1972-73	1,212,837	859,463	112,945	5,096	2,190,342	2,085,335	950.79
1973-74	1,378,727	945,116	116,182	4,977	2,445,002	2,271,936	1,051.86
1974-75	1,544,679	991,396	145,713	5,714	2,687,502	2,548,409	1,191.01
1975-76	1,715,734	1,028,155	161,897	4,644	2,910,430	2,772,531	1,302.94
1976-77	1,614,153	1,193,332	149,280	6,715	2,963,479	2,934,395	1,409.46
1977-78	1,804,754	1,290,231	192,513	5,547	3,293,046	3,286,377	1,623.75
1978-79	1,993,161	1,349,221	215,510	6,433	3,564,326	3,578,392	1,820.43

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1968 through 1979, Bulletin 1011 (Lansing: annually), pp. 14-15 (1979).

NOTE: General fund is the fund used to record the operations of the school district pertaining to education, except those specifically described under Building and Site and Debt Retirement funds. Current operating expenditures are the basic expenses of a school district including expenditures for instruction, administration, attendance, health, transportation, fixed charges, operation of plant, and maintenance of plant. The current operating expenditures exclude capital outlay, community services, student services, and outgoing transfers.

a. Intermediate sources, gifts, and bequests.

b. Excludes incoming transfers.

TABLE IV-25. CHILDREN AND SCHOOLS PARTICIPATING IN SCHOOL LUNCH PROGRAM IN MICHIGAN: FISCAL YEARS 1960-1978

Year	Number of schools participating[a,b]	Children participating[b]	
		Number (000)	Percentage of total enrollment[c]
1960	1,858	347	18.3
1961	1,941	375	19.1
1962	2,050	410	20.4
1963	2,137	445	21.3
1964	2,187	470	21.5
1965	2,228	513	22.7
1966	2,330	556	23.7
1967	2,458	586	24.6
1968	2,440	560	23.3
1969	2,506	588	23.9
1970	2,545	653	26.4
1971	2,757	692	28.4
1972	2,943	675	27.4
1973	2,840	708	28.7
1974	2,976	756	46.3
1975	3,028	761	46.6
1976	2,768	775	46.2
1977	3,256	830	48.7
1978	n.a.	847	49.8

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1961 through 1978 (Washington, D.C.: annually), Table 205 (1978).

a. Public and private elementary and secondary schools; private schools, estimated.

b. Data are for November of the fiscal years prior to 1964 and for December of the fiscal years 1964-1968.

c. Based upon total enrollment in public schools in the fall of the fiscal year and total enrollment in private schools in the previous school year.

n.a.: not available

TABLE IV-26. EARNED DEGREES CONFERRED BY HIGHER EDUCATIONAL INSTITUTIONS IN MICHIGAN AND THE UNITED STATES, BY SEX AND LEVEL OF DEGREE: 1958-1976

Year	Bachelor's and first professional		Master's and second professional		Doctor's degrees (Ph.D., Ed.D. etc.)	
	Men	Women	Men	Women	Men	Women
			Michigan			
			Publicly controlled			
1967-68	13,071	9,757	6,661	3,606	1,024	133
1968-69	14,883	11,809	6,912	4,180	1,173	178
1969-70	16,789	13,001	6,642	4,556	1,387	183
1970-71	17,855	13,391	7,219	5,089	1,539	238
1971-72	18,262	14,181	7,446	5,194	1,433	261
1972-73	19,238	15,089	7,276	5,218	1,429	306
1973-74	18,764	14,332	7,262	5,592	1,243	328
1974-75	17,721	14,015	7,850	5,920	1,295	311
1975-76	17,762	13,838	8,209	6,636	1,105	373
			Privately controlled			
1967-68	3,735	2,329	498	318	6	0
1968-69	4,099	2,472	442	358	4	0
1969-70	4,312	2,601	485	360	7	0
1970-71	4,432	2,595	590	363	14	2
1971-72	4,481	2,578	601	408	16	0
1972-73	4,402	2,466	620	389	21	2
1973-74	4,727	2,589	591	372	10	1
1974-75	4,540	2,622	660	457	26	3
1975-76	4,982	2,799	666	494	15	5
			Total			
1958-59	10,692	5,797	3,058	1,314	445	53
1959-60	11,149	6,559	3,201	1,364	457	55
1960-61	11,294	6,497	3,195	1,550	552	48
1961-62	11,442	7,116	3,649	1,663	576	67
1962-63	11,854	8,057	3,801	1,758	619	72
1963-64	12,829	9,152	4,003	2,112	707	89
1964-65	13,466	9,638	4,325	2,333	755	88
1965-66	14,003	9,868	5,597	3,010	818	101
1966-67	15,562	10,639	6,318	3,325	921	122
1967-68	16,806	12,086	7,109	3,924	1,030	133
1968-69	18,982	14,281	7,354	4,538	1,177	178
1969-70	21,101	15,602	7,127	4,916	1,394	183
1970-71	22,287	15,986	7,809	5,452	1,553	240
1971-72	22,743	16,759	8,047	5,602	1,449	261
1972-73	23,640	17,545	7,896	5,607	1,450	308
1973-74	23,491	16,921	7,853	5,964	1,253	329
1974-75	22,251	16,637	8,510	6,377	1,321	314
1975-76	22,743	16,637	8,037	6,042	1,538	480

TABLE IV-26. EARNED DEGREES CONFERRED BY HIGHER EDUCATIONAL INSTITUTIONS IN MICHIGAN AND THE UNITED STATES, BY SEX AND LEVEL OF DEGREE: 1958-1976 (cont.)

Year	Bachelor's and first professional		Master's and second professional		Doctor's degrees (Ph.D., Ed.D. etc.)	
	Men	Women	Men	Women	Men	Women
			United States			
			Publicaly controlled			
1967-68	232,947	188,456	71,533	41,091	12,575	1,582
1968-69	271,762	209,409	77,751	47,817	14,526	1,929
1969-70	307,514	230,661	79,558	55,793	16,913	2,276
1970-71	328,258	250,428	88,246	64,059	18,064	2,730
1971-72	352,824	270,374	96,468	71,481	18,577	3,205
1972-73	372,890	285,592	99,229	75,991	18,587	3,783
1973-74	383,117	297,812	101,722	83,782	17,897	3,920
1974-75	367,615	296,816	103,509	91,157	17,567	4,612
1975-76	367,854	299,037	105,968	101,241	16,902	4,861
			Privately controlled			
1967-68	167,883	103,457	42,216	22,310	7,610	1,324
1968-69	267,869	113,341	44,130	24,716	8,227	1,507
1969-70	179,435	115,712	46,588	27,448	8,979	1,704
1970-71	185,962	119,738	50,344	28,837	9,470	1,849
1971-72	191,828	122,858	53,617	31,208	9,518	2,069
1972-73	195,471	126,754	55,771	33,534	9,988	2,432
1973-74	196,694	131,031	56,622	36,133	9,477	2,532
1974-75	190,039	133,452	58,606	40,379	0,252	2,655
1975-76	193,905	136,700	61,777	44,015	9,371	2,942
			Total			
1958-59	254,868	130,283	47,321	22,176	8,371	989
1959-60	255,504	139,385	50,937	23,560	8,801	1,028
1960-61	155,900	145,884	54,158	24,111	9,463	1,112
1961-62	262,015	158,470	58,705	26,184	10,377	1,245
1962-63	274,750	175,842	62,944	28,474	11,448	1,374
1963-64	299,813	202,291	69,012	32,110	12,955	1,535
1964-65	319,670	219,260	76,211	35,984	14,692	1,775
1965-66	331,122	224,491	93,184	47,588	16,121	2,118
1966-67	355,300	239,562	103,179	54,713	18,164	2,457
1967-68	392,830	278,760	113,749	63,401	20,185	2,906
1968-69	446,933	322,750	121,881	72,533	22,753	3,436
1969-70	486,949	346,373	126,146	83,241	25,892	3,980
1970-71	514,220	370,166	138,590	92,896	27,534	4,579
1971-72	544,652	393,232	150,085	102,689	28,095	5,274
1972-73	568,361	412,346	155,000	109,525	28,575	6,215
1973-74	579,811	428,843	158,344	119,915	27,374	6,452
1974-75	557,654	430,268	162,115	131,536	26,819	7,267
1975-76	561,759	435,754	167,745	145,256	26,273	7,803

SOURCE: National Center for Education Statistics, Earned Degrees Conferred, 1975-76, Summary Data (Washington, D.C.: 1977), Tables 3, 3A, and 3B, and similar documents for earlier years; and Office of Education, Earned Degrees Conferred by Higher Educational Institutions, 1951-1952 through 1957-1958 (Washington, D.C.: annually), Circulars no. 360a, 380a, 418, 461, 499, 527, and 570 respectively.

TABLE IV-27. OPENING FALL ENROLLMENTS BY TYPE OF MICHIGAN HIGHER EDUCATION INSTITUTIONS (HEADCOUNT): 1960-1979, AND FISCAL-YEAR EQUATED 1974-1979

Year	Public 4-year institutions	Public 2-year institutions	Private institutions	Total
		Headcount		
1960	107,658	27,220	36,398	171,285
1961	112,082	31,619	38,278	181,979
1962	119,834	34,356	39,700	193,890
1963	129,113	38,001	40,611	207,725
1964	143,114	46,123	43,472	232,709
1965	162,312	58,216	47,896	268,424
1966	176,487	69,496	49,462	295,445
1967	187,708	79,698	50,461	317,867
1968	198,419	95,965	50,777	345,161
1969	208,323	115,299	50,759	374,381
1970	217,802	125,553	52,348	395,703
1971	220,165	132,059	51,335	403,559
1972	218,667	137,634	50,658	406,959
1973	221,893	152,715	51,160	425,768
1974	229,627	173,643	55,273	458,543
1975	241,769	197,199	61,081	500,049
1976	236,831	187,622	60,372	484,825
1977	236,618	186,876	60,497	483,991
1978	236,035	187,649	62,810	486,494
1979	240,600	209,554	64,333	514,488
		Fiscal-year equated		
1974	200,556	89,861	48,205	338,622
1975	207,611	109,484	53,151	370,246
1976	213,916	111,646	51,354	376,619
1977	207,284	109,043	51,014	367,341
1978	203,895	107,223	50,647	361,765
1979	196,751	111,394	53,177	361,322

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 21 (1976); and special release.

TABLE IV-28. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1975-1979

Institution and city	1975	1976	1977	1978	1979
Public baccalaureate institutions					
Central Michigan University,	17,565	18,041	17,973	17,802	17,779
Eastern Michigan University, Ypsilanti	20,258	18,175	19,104	18,655	18,865
Ferris State College, Big Rapids	9,460	9,934	9,965	10,208	10,596
Grand Valley State College, Allendale	7,340	7,376	7,469	7,065	7,142
Lake Superior State College, Sault Ste. Marie	2,371	2,457	2,261	2,401	2,309
Michigan State University, East Lansing	48,488	47,796	47,383	46,567	47,355
Michigan Technological University, Houghton	5,958	6,387	6,807	7,130	7,690
Northern Michigan University, Marquette	9,407	9,268	8,844	8,995	9,452
Oakland University, Rochester	10,565	10,457	11,051	11,220	11,729
Saginaw Valley College, University Center	3,209	3,322	3,530	3,706	3,818
University of Michigan, Ann Arbor	37,505	36,863	35,954	36,577	36,158
University of Michigan, Dearborn	4,858	5,194	5,480	5,955	6,406
University of Michigan, Flint	3,474	3,685	3,801	3,884	4,122
Wayne State University, Detroit	38,073	34,818	34,500	33,423	34,337
Western Michigan University, Kalamazoo	23,238	23,058	22,496	22,447	22,842
TOTAL	241,769	236,831	236,618	236,035	240,600
Public community and junior colleges[a]					
Alpena Community College, Alpena	1,787	1,747	1,765	1,752	1,695
Bay de Noc Community College, Escanaba	1,161	1,083	1,163	1,192	1,480
C.S. Mott Community College, Flint	23,922	19,719	13,417	9,045	9,754
Delta College, University Center	8,460	7,986	8,802	9,148	9,585
Glen Oaks Community College, Centerville	1,228	955	721	1,031	1,224
Gogebic Community College, Ironwood	1,232	1,295	1,066	1,004	1,308

TABLE IV-28. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1975-1979 (cont.)

Institution and city	1975	1976	1977	1978	1979
Public community and junior colleges (cont.)					
Grand Rapids Junior College, Grand Rapids	7,120	7,227	8,121	7,516	14,233
Henry Ford Community College, Dearborn	14,700	15,023	16,953	17,191	17,191[b]
Highland Park Community College, Highland Park	3,440	3,221	2,758	2,233	2,323
Jackson Community College, Jackson	8,202	7,030	5,507	6,506	8,554
Kalamazoo Valley Community College, Kalamazoo	5,807	5,922	5,742	6,490	6,663
Kellogg Community College, Battle Creek	5,706	4,285	4,591	4,304	7,368
Kirtland Community College, Roscommon	1,189	1,183	1,058	1,118	1,075
Lake Michigan College, Benton Harbor	3,339	3,197	3,345	3,250	3,301
Lansing Community College, Lansing	15,436	17,102	18,345	18,313	20,129
Macomb County Community College, Warren	24,713	23,593	24,356	25,032	25,619
Mid-Michigan Community College, Gladwin	1,231	1,424	1,303	1,632	1,660
Monroe County Community College, Monroe	2,116	2,028	2,200	2,020	1,994
Montcalm Community College, Sidney	1,111	1,200	1,199	1,333	1,650
Muskegon Community College, Muskegon	5,590	4,668	4,555	5,011	5,353
North Central Michigan College, Petoskey	1,503	1,487	1,502	1,519	1,836
Northwestern Michigan College, Traverse City	2,575	2,605	2,628	2,731	2,971
Oakland Community College, Bloomfield Hills	18,552	18,400	18,825	19,995	20,683
St. Clair County Community College, Port Huron	4,494	3,147	3,258	3,165	3,350
Schoolcraft College, Livonia	8,056	7,837	8,239	9,410	7,904
Southwestern Michigan College, Dowagiac	1,525	1,567	1,737	1,844	2,001
Washtenaw Community College, Ann Arbor	6,600	6,618	7,172	7,465	7,622
Wayne County Community College, Detroit	15,453	15,145	15,636	15,610	20,101
West Shore Community College, Scottville	951	928	912	789	927
TOTAL	197,199	187,622	186,876	187,649	209,554

TABLE IV-28. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1975-1979 (cont.)

Institution and city	1975	1976	1977	1978	1979
	Private institutions				
Adrian College, Adrian	1,044	1,044	912	824	945
Albion College, Albion	1,771	1,698	1,705	1,784	1,781
Alma College, Alma	1,139	1,113	1,170	1,183	1,201
Andrews University, Berrien Springs	2,655	2,825	2,837	2,924	2,983
Aquinas College, Grand Rapids	1,706	1,703	1,684	1,918	2,163
Baker Jr. College of Business, Flint	1,424	1,241	1,050	1,312	1,171
Calvin College, Grand Rapids	3,674	3,915	4,075	3,977	3,988
Calvin Theological Seminary, Grand Rapids	210	220	220	210	209
Center for Creative Studies	915	843	983	1,009	1,034
Cleary College, Ypsilanti	633	432	461	459	586
Concordia Lutheran Junior College, Ann Arbor	456	552	615	556	552
Cooley Law School, Lansing	667	824	998	1,046	1,079
Cranbrook Academy of Art, Bloomfield Hills	150	149	155	145	158
Davenport College of Business, Grand Rapids	1,843	2,031	2,174	2,243	2,570
Detroit Bible College, Detroit	292	262	335	301	388
Detroit College of Business, Dearborn	3,365	2,555	2,065	1,887	2,198
Detroit College of Law, Detroit	918	1,002	957	845	816
Detroit Institute of Technology, Detroit	1,539	1,436	1,412	810	828
Duns Scotus College, Southfield	50	66	56	59	35
General Motors Institute, Flint	2,447	2,334	2,354	2,248	2,241
Grace Bible College, Grand Rapids	174	166	159	215	198
Grand Rapids School of Bible, Grand Rapids	635	634	579	570	583
Great Lakes Bible College, Lansing	222	238	200	232	206
Grand Rapids Baptist, Grand Rapids	972	853	1,048	1,137	1,144
Hillsdale College, Hillsdale	1,070	1,010	1,048	989	1,035

TABLE IV-28. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1975-1979 (cont.)

Institution and city	1975	1976	1977	1978	1979
Private institutions (cont.)					
Hope College, Holland	2,275	2,290	2,330	2,371	2,355
John Wesley College at Owosso, Owosso	593	457	284	221	66
Jordon College, Cedar Springs	50	137	179	281	914
Kalamazoo College, Kalamazoo	1,496	1,501	1,534	1,444	1,438
Lawrence Institute of Technology, Southfield	4,413	4,584	4,714	4,861	4,991
Lewis College of Business	--	--	164	560	455
Madonna College, Livonia	1,782	2,091	2,521	3,011	3,131
Marygrove College, Detroit	871	816	811	871	958
Mercy College of Detroit, Detroit	2,140	2,208	2,226	2,272	2,281
Merrill-Palmer Institute, Detroit	107	86	88	115	97
Michigan Christian Junior College, Rochester	343	347	400	312	262
Muskegon Business College, Muskegon	869	752	1,002	1,017	994
Nazareth College, Nazareth	457	451	538	620	524
Northwood Institute, Midland	1,262	1,360	1,510	1,653	1,789
Olivet College, Olivet	869	779	708	671	628
Reformed Bible College, Grand Rapids	198	196	213	235	234
Sacred Heart Seminary, Detroit	132	162	164	119	108
Saint John's Seminary	--	--	98	110	141
St. Mary's College, Orchard Lake	106	192	213	196	205
Shaw College at Detroit, Detroit	1,352	1,242	1,039	805	603
Siena Heights College, Adrian	1,124	1,060	1,070	1,131	1,327
Spring Arbor College, Spring Arbor	890	890	825	845	1,048
Suomi College, Hancock	438	401	403	537	440
University of Detroit, Detroit	8,054	7,910	8,094	7,848	7,025
Walsh College of Accountancy and Business Administration, Troy	1,047	999	1,287	1,393	1,583

TABLE IV-28. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1975-1979 (cont.)

Institution and city	1975	1976	1977	1978	1979
	Private institutions (cont.)				
Western Theological Seminary, Holland	145	129	122	141	124
TOTAL	61,081	60,372	60,497	62,810	64,333

SOURCE: Michigan Department of Education, special release.

NOTE: Enrollment statistics are based on actual headcounts of students enrolled in degree programs, unclassified students, and graduate students.

a. Community service enrollments (in fishing, knitting, dancing, and other "leisure time" classes) not included in Fall 1977 headcounts.

b. 1978 data, 1979 data not available.

TABLE IV-29. FISCAL YEAR EQUATED STUDENTS, EXPENDITURES, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1979

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Full-time instructional faculty[d]	
				Male	Female
Public baccalaureate institutions					
Central Michigan University	15,213	25,807	536,369	489	104
Eastern Michigan University	12,958	22,526	465,279	436	162
Ferris State College	10,415	16,291	187,038	394	77
Grand Valley State College	5,223	9,243	207,811	179	49
Lake Superior State College	2,087	2,990	92,987	88	20
Michigan State University	41,374	109,062	1,905,583	1,689	302
Michigan Technological University	7,327	12,625	455,367	288	47
Northern Michigan University	7,791	12,178	347,782	276	85
Oakland University	8,302	14,082	285,761	257	80
Saginaw Valley State College	2,465	3,717	87,524	78	23
University of Michigan-Ann Arbor	32,336	128,645	4,766,340	1,386	308
University of Michigan-Dearborn	4,470	6,671	211,130	145	43
University of Michigan-Flint	2,916	4,735	94,892	94	29
Wayne State University	25,934	83,871	1,804,932	800	294
Western Michigan University	17,940	32,549	753,870	668	172
TOTAL	196,751	484,992	12,202,665	7,267	1,795
Public community and junior colleges					
Alpena	996	1,723	29,053	38	8
Bay de Noc	1,057	1,460	24,814	32	9
C. S. Mott	5,090	8,846	90,806	140	70
Delta	5,516	9,807	84,754	133	74
Glen Oaks	814	773	31,615	18	5
Gogebic	977	1,336	21,883	35	7
Grand Rapids Jr.	7,203	7,479	48,866	142	84
Henry Ford	10,983	11,378	87,077	153	57
Highland Park	1,893	2,380	31,000[e]	44	28
Jackson	3,755	5,001	39,197	76	27
Kalamazoo Valley	3,085	3,439	60,352	64	24

TABLE IV-29. FISCAL YEAR EQUATED STUDENTS, EXPENDITURES, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1979 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Full-time instructional faculty[d] Male	Female
Public community and junior colleges (cont.)					
Kellogg	3,440	3,330	39,143	57	29
Kirtland	872	1,027	30,012	14	8
Lake Michigan	1,650	1,871	70,000	35	19
Lansing	9,065	10,779	74,277	113	49
Macomb	12,167	14,121	151,702	235	108
Mid Michigan	943	1,237	18,283	21	14
Monroe	1,124	1,506	45,000[e]	40	10
Montcalm	892	1,021	20,669	17	6
Muskegon	2,641	4,166	52,980	77	34
North Central Michigan	1,015	982	21,239	23	9
Northwestern	2,168	3,500[e]	44,390	77	20
Oakland	10,661	12,281	146,673	170	81
St. Clair	2,320	4,272	41,871	67	37
Schoolcraft	3,794	5,362	69,765	101	40
Southwestern	1,410	1,611	25,000	29	12
Washtenaw	3,310	5,676	48,219	97	27
Wayne	11,889	12,396	42,192	86	100
West Shore	664	906	11,349	22	7
TOTAL	111,394	139,666	1,501,181	2,156	1,003
Independent colleges and universities					
Adrian College	888	1,615	112,210	50	10
Albion College	1,764	2,904	218,341	88	23
Alma College	1,188	2,129	137,429	54	11
Andrews University	2,619	5,741	372,836	n.a.	n.a.
Aquinas College	1,459	2,073	105,835	43	7
Baker Jr. College of Business	1,087	540	3,000	3	15
Calvin College	3,812	6,242	308,251	166	29
Calvin Seminary	175	489	n.a.	16	0

TABLE IV-29. FISCAL YEAR EQUATED STUDENTS, EXPENDITURE, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1979 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Full-time instructional faculty[d]	
				Male	Female
Independent colleges and universities (cont.)					
Center for Creative Studies	709	1,073	10,400	32	8
Cleary College	348	240	10,708	n.a.	n.a.
Concordia College	538	863	103,434	30	7
Cooley Law School	1,079	980	n.a.	18	1
Cranbrook Academy of Art	158	273	20,179	9	0
Davenport College of Business	1,778	1,587	12,676	18	14
Detroit Bible College	228	229	39,264	10	2
Detroit College of Business	1,747	821	18,180	11	8
Detroit College of Law	528	889	52,523	25	3
Detroit Institute of Technology	611	1,192	53,036	22	9
Duns Scotus College	35	138	n.a.	4	0
General Motors Institute	2,241	n.a.	40,519	n.a.	n.a.
Grace Bible College	165	318	25,855	8	1
Grand Rapids School of Bible	544	434	12,225	13	2
Grand Rapids Baptist College	1,015	962	65,065	40	10
Great Lakes Bible College	195	225	17,502	11	1
Hillsdale College	1,027	n.a.	85,686	47	11
Hope College	2,162	3,755	n.a.	123	16
John Wesley College	60	n.a.	36,000	8	2
Jordan College	697	n.a.	13,000	8	3
Kalamazoo College	1,438	3,607	223,303	68	15
Kendall School of Design	394	433	6,410	11	3
Lawrence Institute of Technology	3,958	2,593	47,321	43	5
Lewis College of Business	428	124	2,778	3	6
Madonna College	2,132	1,762	94,685	22	56
Marygrove College	767	1,276	171,147	15	31
Mercy College of Detroit	1,735	2,410	118,000	31	58
Merrill-Palmer Institute	86	n.a.	18,000	n.a.	n.a.
Michigan Christian Jr. College	235	257	34,495	7	4
Muskegon Business College	890	328	3,597	11	6
Nazareth College	418	723	83,000	7	26

TABLE IV-29. FISCAL YEAR EQUATED STUDENTS, EXPENDITURE, LIBRARY BOOKSTOCK, AND NUMBER OF FACULTY AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION, BY INSTITUTION: 12-MONTH PERIOD ENDING 30 JUNE 1979 (cont.)

Institution	Students[a]	Instructional expenditure[b] ($000)	Bookstock[c]	Full-time instructional faculty[d]	
				Male	Female
Independent colleges and universities (cont.)					
Northwood Institute	1,756	n.a.	30,289	32	10
Olivet College	604	1,021	74,293	32	6
Reformed Bible College	209	247	34,465	9	3
Sacred Heart College	62	130	50,956	7	0
St. John's Seminary	104	131	n.a.	5	1
S.S. Cyril	54	138	n.a.	n.a.	n.a.
Saint Mary's College	144	200	n.a.	n.a.	n.a.
Shaw College at Detroit	539	858	89,668	23	17
Sienna Heights College	915	1,210	76,469	22	15
Spring Arbor College	981	893	64,423	31	8
Suomi College	433	637	22,348	11	5
University of Detroit	5,252	11,045	423,807	208	45
Walsh College	683	415	12,500	n.a.	n.a.
Western Theological Seminary	103	350	74,977	11	1
TOTAL	53,177	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Education, special release.

a. Total number of semester hours accredited to students during the year, divided by 31.
b. Instructional expenditures only; excludes hospitals, dormitories and other auxiliary enterprises, research, public service, academic support, student services, institutional support, and maintenance.
c. Number of volumes in libraries in 1979.
d. Academic year (9-10 months) plus year-round appointments. Includes department chairpersons and faculty on sabbatical. Excludes deans, librarians, registrars, coaches, and other administrative officers; part-time faculty; and teaching assistants.
e. Estimated by Bureau of Business and Economic Research, Michigan State University.
n.a.: not available.

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public colleges and universities					
Central Michigan Univ. Mt. Pleasant	$ 1,026	$ 1,800	$ 700	$ 300	$ 3,826
Eastern Michigan Univ. Ypsilanti	875	1,647	700	300	3,522
Ferris State College Big Rapids	990	1,890	700	300	3,880
Grand Valley State College Allendale	1,020	1,870	700	300	3,890
Lake Superior State College Sault Ste. Marie	930	1,860	700	300	3,790
Michigan State University East Lansing					
Freshman, Sophomore	1,200	1,699	700	300	3,899
Junior, Senior	1,299	1,699	700	300	3,998
Michigan Technological Univ. Houghton	1,059	1,885	700	300	3,944
Northern Michigan University Marquette	1,059	1,900	700	300	3,959
Oakland Univ., Rochester	944	1,885	700	300	3,829
Saginaw Valley State College University Center	908	1,759	700	300	3,667
Univ. of Michigan, Ann Arbor					
Freshman, Sophomore	1,412	2,262	700	300	4,674
Junior, Senior	1,579	2,262	700	300	4,841
Univ. of Michigan/Dearborn Dearborn	1,060	1,400	700	550	3,710
University of Michigan/Flint Flint	975	1,400	700	550	3,625
Wayne State Univ., Detroit					
Freshman, Sophomore	1,238	1,400	700	550	3,888
Junior, Senior	1,340	1,400	700	550	3,990
Western Michigan University Kalamazoo	978	1,658	700	300	3,636
Nonpublic colleges and universities					
Adrian College, Adrian	3,900	1,800	700	300	6,700
Albion College, Albion	4,553	2,014	700	300	7,567
Alma College, Alma	4,209	1,940	700	300	7,149
Andrews University Berrien Springs					
Undergraduate	4,000	2,100	700	300	7,100
Graduate	2,880	2,100	700	300	5,980
Aquinas College, Grand Rapids	3,555	1,870	700	300	6,425
Baker Jr. College of Bus. Flint	1,920	1,400	700	550	4,570

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
Calvin College					
Grand Rapids	$3,000	$1,520	$ 700	$ 300	$5,850
Center for Creative Studies College of Art and Design					
Detroit	3,200	1,400	700	300	5,850
Cleary College, Ypsilanti	2,190	1,400	700	550	4,840
Concordia Coll., Ann Arbor	2,278	1,649	700	300	4,927
Cranbrook Academy of Art					
Bloomfield Hills	3,246	2,125	700	300	6,371
Davenport College of Bus.					
Grand Rapids	2,544	1,875	700	300	5,419
Detroit Bible College					
Detroit	1,970	1,400	700	550	4,620
Detroit College of Business					
Dearborn	2,045	1,400	700	550	4,695
Detroit College of Law					
Detroit					
Day	2,600	1,400	700	550	5,250
Evening	1,950	1,400	700	550	4,600
Detroit Inst. of Technology					
Detroit	2,402	1,400	700	550	5,052
General Motors Institute					
Flint	1,264	1,120	560	240	3,184
Grace Bible College					
Grand Rapids	1,405	1,710	700	300	4,115
Grand Rapids Baptist College					
Grand Rapids	2,500	1,770	700	300	5,270
Great Lakes Bible College					
Lansing	1,593	1,520	700	300	4,113
Hillsdale Coll,, Hillsdale	4,310	2,140	700	300	7,450
Hope College, Holland	3,950	1,825	700	300	6,775
John Wesley College at Owosso					
Owosso	3,030	2,340	700	300	6,370
Jordan Coll., Cedar Springs	1,950	1,500	700	300	4,450
Kalamazoo Coll., Kalamazoo	4,794	1,953	700	300	7,747
Kendall School of Design					
Grand Rapids	2,736	1,400	700	550	5,386
Lawrence Inst. of Technology					
Southfield					
Undergraduate	1,575	1,400	700	550	4,225
Graduate	1,740	1,400	700	550	4,390
Lewis College of Business					
Detroit	2,190	1,450	1,050	825	5,515
Madonna College, Livonia	1,508	1,690	700	300	4,198

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
Marygrove College, Detroit					
Undergraduate	$ 3,100	$ 1,980	$ 700	$ 300	$ 6,080
Graduate	1,770	1,980	700	300	4,750
Mercy College of Detroit					
Detroit	2,640	1,720	700	300	5,360
Merrill-Palmer Institute					
Detroit					
Junior, Senior	3,080	1,900	700	300	5,980
Graduate	3,300	1,900	700	300	6,200
Michigan Christian Jr. College					
Rochester	1,930	1,630	700	300	4,560
Muskegon Business College					
Muskegon	1,815	1,400	700	550	4,465
Nazareth College					
Nazareth	3,700	1,840	700	300	6,540
Northwood Institute, Midland	1,640	1,590	700	300	5,230
Olivet College, Olivet	4,030	1,900	700	300	6,930
Reformed Bible College					
Association, Detroit	1,880	1,450	700	300	4,330
Sacred Heart Seminary					
Detroit	1,300	1,050	700	300	3,350
Shaw College of Detroit					
Detroit	2,930	1,400	700	550	5,580
St. Mary's College					
Orchard Lake	1,600	1,200	700	300	3,800
Siena Heights College, Adrian					
Undergraduate	2,520	1,650	700	300	5,170
Graduate	2,136	1,650	700	300	4,786
Spring Arbor College					
Spring Arbor	3,600	1,550	700	300	6,150
Suomi College, Hancock	4,900	1,900	700	300	7,800
Thomas Cooley Law School[d]					
Lansing	2,715	2,100	1,050	825	6,690
University of Detroit					
Detroit	3,840	2,310	700	300	7,150
University of Detroit					
Detroit					
Graduate Programs					
College: Law, day	4,004	2,310	700	300	7,314
College: General graduate	2,646	2,310	700	300	5,956
College: Dentistry	5,950	2,310	700	300	9,260
Walsh College/Act. and Bus.					
Administration, Detroit					
Undergraduate	1,560	1,400	700	550	4,210
Graduate	1,248	1,400	700	550	3,898

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges					
Alpena Comm. College					
Alpena					
Resident of district	$ 496	$ 1,400	$ 700	$ 550	$ 3,146
Non-resident of district	806	1,720	700	300	3,526
Bay De Noc Community College					
Escanaba					
Resident of district	511	1,400	700	550	3,161
Non-resident of district	697	1,500	700	300	3,197
Delta College, Univ. Center					
Resident of district	578	1,400	700	550	3,228
Non-resident of district	1,027	1,400	700	550	3,677
C.S. Mott Community College					
Flint					
Resident of district	620	1,400	700	550	3,270
Non-resident of district	806	1,400	700	550	3,456
Glen Oaks Community College					
Centreville					
Resident of district	549	1,400	700	550	3,199
Non-resident of district	797	1,400	700	550	3,447
Gogebic Comm. College					
Ironwood					
Resident of district	464	1,400	700	550	3,114
Non-resident of district	681	1,400	700	550	3,331
Grand Rapids Jr. College					
Grand Rapids					
Resident of district	527	1,400	700	550	3,177
Non-resident of district	884	1,400	700	550	3,534
Henry Ford Community College					
Dearborn					
Resident of district	433	1,400	700	550	3,083
Non-resident of district	712	1,400	700	550	3,362
Highland Park Comm. College					
Highland Park					
Resident of district	480	1,400	700	550	3,130
Non-resident of district	780	1,400	700	550	3,430
Jackson Comm. Coll., Jackson					
Resident of district	620	1,400	700	550	3,270
Non-resident of district	868	1,400	700	550	3,518
Kalamazoo Valley Comm. College					
Kalamazoo					
Resident of district	465	1,400	700	550	3,115
Non-resident of district	930	1,400	700	550	3,580
Kellogg Community College					
Battle Creek					
Resident of district	512	1,400	700	550	3,162
Non-resident of district	822	1,400	700	550	3,472

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges (cont.)					
Kirtland Community College					
Roscommon					
Resident of district	$ 405	$ 1,400	$ 700	$ 550	$ 3,055
Non-resident of district	585	1,400	700	550	3,235
Lake Michigan College					
Benton Harbor					
Resident of district	560	1,400	700	550	3,210
Non-resident of district	770	1,400	700	550	3,420
Lansing Comm. Coll. Lansing					
Resident of district	510	1,400	700	550	3,160
Non-resident of district	780	1,400	700	550	3,430
Macomb County Comm. College					
Warren					
Resident of district	527	1,400	700	550	3,177
Non-resident of district	930	1,400	700	550	3,580
Macomb County Comm. College					
Mt. Clemens					
Resident of district	527	1,400	700	550	3,177
Non-resident of district	930	1,400	700	550	3,580
Mid-Michigan Comm. College					
Harrison					
Resident of district	496	1,400	700	550	3,146
Non-resident of district	688	1,400	700	550	3,338
Monroe County Comm. College					
Monroe					
Resident of district	495	1,400	700	550	3,145
Non-resident of district	735	1,400	700	550	3,385
Montcalm Comm. Coll., Sidney					
Resident of district	480	1,400	700	550	3,130
Non-resident of district	690	1,400	700	550	3,340
Muskegon Comm. College					
Muskegon					
Resident of district	465	1,400	700	550	3,115
Non-resident of district	682	1,400	700	550	3,332
North Central Michigan College					
Petoskey					
Resident of district	421	1,400	700	550	3,071
Non-resident of district	601	1,705	700	300	3,306
Northwestern Michigan College					
Traverse City					
Resident of district	669	1,400	700	550	3,319
Service Area	1,041	1,400	700	550	3,691
Non-resident of district	1,137	1,550	700	300	3,687
Oakland Comm. College					
Bloomfield Hills					
Resident of district	559	1,400	700	550	3,209
Non-resident of district	869	1,400	700	550	3,519

TABLE IV-30. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1980: EXPENSE FOR 1980-1981 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges (cont.)					
St. Clair Comm. College Port Huron					
Resident of district	$ 550	$ 1,400	$ 700	$ 550	$ 3,200
Non-resident of district	860	1,400	700	550	3,510
Schoolcraft Coll., Livonia					
Resident of district	552	1,400	700	550	3,202
Non-resident of district	877	1,400	700	550	3,527
Southwestern Michigan Coll. Dowagiac					
Resident of district	558	1,400	700	550	3,208
Non-resident of district	682	1,400	700	550	3,332
Washtenaw Comm. College Ann Arbor					
Resident of district	480	1,400	700	550	3,130
Non-resident of district	896	1,400	700	550	3,546
Wayne County Comm. College Detroit					
Resident of district	436	1,400	700	550	3,086
Non-resident of district	556	1,400	700	550	3,206
West Shore Comm. Coll. Scottville					
Resident of district	569	1,400	700	550	3,219
Non-resident of district	839	1,400	700	550	3,489
Blodgett Memorial Medical Center School of Nursing, Grand Rapids[e]					
1st year	3,560	1,400	700	550	6,210
2nd and 3rd years	1,029	1,555	777	611	3,972

SOURCE: Michigan Department of Education, special release.

NOTE: Figures were developed by the Michigan Department of Education office of student financial assistance services for use in the scholarship and tuition grant programs under their jurisdiction.

a. A standard of $1,400 is assumed at institutions where the dormitories can accommodate less than 10 percent of the student body.

b. A standard of $700 is assumed at most institutions.

c. A standard of $300 is assumed at institutions where the dormitories can accommodate 10 percent or more of the student body; a standard of $550 is assumed where the dormitories can accommodate less than 10 percent.

d. Figures for Lewis College of Business, Detroit, and Cooley Law School, Lansing, represent 12 month budget figures.

e. Tuition based upon students attending Blodgett and Calvin. For students attending Grand Rapids Junior College, the college must monitor for the lower tuition charges.

TABLE IV-31. EDUCATIONAL AND GENERAL REVENUES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEAR 1979

(In thousands of dollars)

Institution	Tuition and fees	State appropriations	Sales and services		Other	Total
			Educational activities	Auxiliary enterprises		
Central Michigan University	18,759	26,291	1,870	14,382	3,861	65,163
Eastern Michigan University	12,485	30,967	677	10,728	5,399	60,256
Ferris State College	8,456	19,416	1,153	12,927	2,742	44,694
Grand Valley State College	4,871	11,794	678	2,664	3,967	23,974
Lake Superior State College	1,658	5,039	10	2,802	1,069	10,578
Michigan State University	52,806	129,324	13,136	60,824	63,171	319,261
Michigan Technical University	7,052	17,295	637	8,460	8,273	41,717
Northern Michigan University	6,989	18,532	1,044	8,394	2,919	37,878
Oakland University	7,473	17,498	1,309	8,423	5,125	39,828
Saginaw Valley College	2,040	5,864	99	1,260	1,083	10,346
University of Michigan						
Ann Arbor	68,898	131,566	20,316	34,186	259,507[a]	514,473[a]
Dearborn	4,654	8,343	278	766	965	15,006
Flint	2,378	7,646	137	153	914	11,228
Wayne State University	32,504	90,810	3,751	8,308	40,396	175,769
Western Michigan University	17,236	41,684	2,320	18,733	7,821	87,794
TOTAL	248,259	562,069	47,415	193,010	407,212	1,457,965

SOURCE: Michigan Department of Education, special release.

a. Hospital revenues amounted to $134,462,526.

TABLE IV-32. EDUCATIONAL AND GENERAL EXPENDITURES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEAR 1979

(In thousands of dollars)

Institution	Instruction	Research	Public service	Plant operation and maintenance	Auxiliary expenditures	Total[a]
Central Michigan University	25,807	180	1,660	3,908	14,783	64,314
Eastern Michigan University	22,526	351	1,929	5,291	10,114	60,064
Ferris State College	16,291	174	117	4,369	10,449	44,043
Grand Valley State College	9,243	111	1,110	2,077	3,477	23,704
Lake Superior State College	2,990	2	287	1,140	2,727	9,955
Michigan State University	109,062	44,399	28,985	31,492	58,616	320,176
Michigan Technical University	12,625	5,533	628	3,834	8,410	41,033
Northern Michigan University	12,178	140	1,387	3,585	9,419	37,664
Oakland University	14,082	1,599	1,484	3,409	8,276	39,695
Saginaw Valley College	3,717	64	5	1,105	1,122	10,142
University of Michigan						
Ann Arbor	128,645	73,723	4,096	41,812	33,255	501,149[b]
Dearborn	6,671	104	334	1,759	756	14,774
Flint	4,735	80	329	1,377	106	11,006
Wayne State University	83,871	14,595	3,413	17,978	10,759	176,070
Western Michigan University	32,549	934	2,486	7,651	21,144	87,447
TOTAL	484,992	141,989	48,250	130,787	193,413	1,441,236

SOURCE: Michigan Department of Education, special release.

a. Also includes academic support, student services, institutional support, scholarships and fellowships, and independent operations.

b. Hospital expenditures amounted to $132,281,724.

V. THE LABOR MARKET

Since World War II, it has often been the case that when the nation catches an economic chill, Michigan catches economic pneumonia. During 1979, Michigan caught pneumonia all by itself. The state's economy plunged into slump as a result, first, of Chrysler's problems and, later, of the general drop in demand for domestic makes of cars and trucks. Average weekly hours put in by production workers in manufacturing plants declined sharply in April and remained below previous year levels thereafter. The number of wage and salary jobs dipped below previous year figures during August, and the decline then accelerated. Total civilian employment started to plunge in December 1979. Monthly total employment and unemployment figures for Michigan and the United States are shown in Tables V-10, V-11, and V-12. Monthly job data are shown in Table V-13. Figures on average hours worked in manufacturing plants are presented in chapter XV, which deals with manufacturing in general. The reader may also wish to consult chapter XVI, devoted to the automotive economy.

The civilian work force is the sum of the unemployed, those workers involved in labor disputes, and total employment (wage and salary workers, farm workers, self-employed unpaid family workers, and domestics). The unemployment rate is the number of unemployed divided by the total labor force, ususally stated as a percentage. The work force includes all persons aged 16 years and older who are classified as employed or unemployed. Those not in the labor force are without a job and are not looking for work for reasons of health, incarceration, college status, retirement, youth, voluntary idleness, involuntary idleness but not looking for a job, and so forth.

Civilian work force, employment, and unemployment figures are estimated from the Current Population Survey (CPS), a sample of U.S. households, not a complete count. The CPS, selected so as to be representative of the total population, is conducted each month by the Bureau of the Census. The results are turned over to the Bureau of Labor Statistics for analysis and release. For the ten largest states, of which Michigan is one, monthly labor force, employment, and unemployment figures come directly from the CPS. For the District of Columbia and the other 40 states, other procedures are used.

Sampling error is the error associated with using a sample of households rather than a complete census. The relative error varies inversely with the size of the statistic being estimated and with the size of the sample. Tables of sampling errors for the various statistics shown in Table V-1 through V-13 may be consulted in BLS publications dealing with geographic profiles of employment and unemployment, published annually.

Job data are estimated from a sample of employers taken monthly by the Michigan Employment Security Commission and similar agencies in other states and the District of Columbia. MESC estimates are made each month for the state, the major labor market areas (these coincide with the Standard Metropolitan Statistical Areas, for the most part), for small labor markets, and for the Upper Peninsula, by industry group. There is no measure of the sampling error in job data (Tables V-13 through V-16). Each year the job figures are revised on the basis of the March benchmark.

The MESC carefully compares the employer sample with a tabulation of jobs reported by all employers covered under the regular state unemployment insurance system in order to make adjustments in its procedures.

The chapters dealing with retail trade, wholesale trade, and services provide greater detail on jobs for those sectors; however, the figures given there are developed differently and pertain to the mid-March pay period only. They are helpful guides as to which specific kinds of retailing, wholesaling, and services provide the most and fewest jobs. Also, the industry chapters in this Abstract have tabulations of licenses issued in various professions. In using those figures, the reader should bear in mind that, for one reason or another, not all license holders are practicing those professions.

Tables V-21 and V-22 are included because a number of analysts use these data in lieu of anything better. It must be emphasized that many establishments, such as "mom-and-pop" restaurants, grocery stores, and motels, are not covered under the state's unemployment insurance program. Coverage is least in agriculture, services, and retail trade. It is virtually complete in manufacturing.

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TABLE V-1. CIVILIAN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: 1956-1979

(Labor force, employment, and unemployment in thousands)

Year	Michigan				United States			
	Labor force	Employment	Unemployment		Labor force	Employment	Unemployment	
			Number	Rate			Number	Rate
1956	3,141	2,923	218	6.9	66,552	63,799	2,750	4.1
1957	3,076	2,874	202	6.6	66,929	64,071	2,859	4.3
1958	3,045	2,627	418	13.7	67,639	63,036	4,602	6.8
1959	2,968	2,718	250	8.4	68,369	64,630	3,740	5.5
1960	2,959	2,760	199	6.7	69,628	65,778	3,852	5.5
1961	2,954	2,655	299	10.1	70,459	65,746	4,714	6.7
1962	2,939	2,734	205	7.0	70,614	66,702	3,911	5.5
1963	2,967	2,801	166	5.6	71,833	67,762	4,070	5.7
1964	3,071	2,923	148	4.8	73,091	69,305	3,786	5.2
1965	3,211	3,086	125	3.9	74,455	71,088	3,366	4.5
1966	3,369	3,252	117	3.5	75,770	72,895	2,875	3.8
1967	3,450	3,296	154	4.5	77,347	74,372	2,975	3.8
1968	3,501	3,350	151	4.3	78,737	75,920	2,817	3.6
1969	3,594	3,449	145	4.0	80,734	77,902	2,832	3.5
1970	3,596	3,356	241	6.7	82,715	78,627	4,088	4.9
1971	3,621	3,345	277	7.6	84,113	79,120	4,993	5.9
1972	3,705	3,445	260	7.0	86,542	81,702	4,840	5.6
1973	3,808	3,587	221	5.8	88,714	84,409	4,304	4.9
1974	3,883	3,595	288	7.4	91,011	85,935	5,076	5.6
1975	3,901	3,414	487	12.5	92,613	84,783	7,830	8.5
1976	3,999	3,625	374	9.4	94,773	87,485	7,288	7.7
1977	4,118	3,781	337	8.2	97,401	90,546	6,855	7.0
1978	4,199	3,910	289	6.9	100,420	94,373	6,047	6.0
1979	4,313	3,978	335	7.8	102,908	96,945	5,963	5.8

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly), January 1980, Table A-1.

TABLE V-2. ADULT CIVILIAN LABOR FORCE, LABOR FORCE PARTICIPATION RATE, AND CIVILIAN EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGES OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1979

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979
Michigan								
White			Civilian labor force (000)					
Men 20 yrs. & over	1,884	1,926	1,929	1,954	1,973	2,025	2,021	2,027
Women 20 yrs. & over	1,002	1,040	1,063	1,154	1,203	1,233	1,250	1,320
Negro & other races								
Men 20 yrs. & over	200	200	216	223	211	225	242	271
Women 20 yrs. & over	139	140	151	153	158	170	206	222
White			Participation rate					
Men 20 yrs. & over	82.8	82.3	82.2	80.8	81.1	81.8	80.6	80.7
Women 20 yrs. & over	40.3	41.1	42.1	44.4	46.0	46.7	46.3	48.4
Negro & other races								
Men 20 yrs. & over	82.3	75.5	76.6	73.1	71.8	70.8	76.1	78.1
Women 20 yrs. & over	47.0	46.5	47.3	44.7	45.0	48.2	55.4	55.8
White			Civilian employment (000)					
Men 20 yrs. & over	1,786	1,848	1,869	1,755	1,843	1,927	1,945	1,923
Women 20 yrs. & over	947	979	1,016	1,040	1,091	1,139	1,174	1,235
Negro & other races								
Men 20 yrs. & over	183	180	196	180	191	203	220	232
Women 20 yrs. & over	120	124	132	127	135	144	175	187
United States								
White			Civilian labor force (000)					
Men 20 yrs. & over	43,088	43,961	44,490	45,617	46,179	46,960	47,733	48,583
Women 20 yrs. & over	25,030	25,822	26,647	28,609	29,660	30,852	32,233	33,545
Negro & other races								
Men 20 yrs. & over	4,773	4,847	5,049	5,238	5,348	5,504	5,731	5,904
Women 20 yrs. & over	3,768	3,888	4,067	4,351	4,617	4,833	5,182	5,366
White			Participation rate					
Men 20 yrs. & over	82.3	82.6	81.7	80.7	80.3	80.2	80.2	80.2
Women 20 yrs. & over	42.3	42.7	43.4	45.3	46.2	47.4	48.7	49.9
Negro & other races								
Men 20 yrs. & over	80.0	78.5	78.5	76.4	75.5	75.6	76.4	76.4
Women 20 yrs. & over	51.8	51.5	51.3	51.2	52.6	53.3	55.4	55.6
White			Civilian employment (000)					
Men 20 yrs. & over	41,347	42,362	43,183	42,801	43,704	44,784	45,977	46,854
Women 20 yrs. & over	23,707	24,555	25,494	26,459	27,634	28,930	30,547	31,876
Negro & other races								
Men 20 yrs. & over	4,428	4,518	4,763	4,626	4,782	4,953	5,236	5,409
Women 20 yrs. & over	3,443	3,545	3,735	3,851	4,096	4,268	4,632	4,822

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973); 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 1; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Tables 3 and 4, and similar documents for previous years; and special release.

TABLE V-3. LEVEL AND RATE OF ADULT UNEMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGE OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1979

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979
			Michigan					
			Total unemployed (000)					
White								
Men 20 yrs. & over	98	79	58	200	130	98	77	104
Women 20 yrs. & over	55	60	49	113	113	93	77	85
Negro and other races								
Men 20 yrs. & over	18	19	21	44	20	21	22	38
Women 20 yrs. & over	21	16	19	25	25	27	29	34
			Unemployment rate					
White								
Men 20 yrs. & over	5.2	4.1	3.0	10.2	6.6	4.8	3.8	5.1
Women 20 yrs. & over	5.5	5.8	4.6	9.8	9.4	7.5	6.2	6.4
Negro and other races								
Men 20 yrs. & over	9.0	9.5	9.7	19.7	9.5	9.3	9.1	14.0
Women 20 yrs. & over	15.1	11.4	12.6	16.3	15.8	15.9	14.1	15.3
			United States					
			Total unemployed (000)					
White								
Men 20 yrs. & over	1,741	1,598	1,307	2,816	2,474	2,176	1,756	1,728
Women 20 yrs. & over	1,324	1,268	1,153	2,149	2,025	1,922	1,686	1,669
Negro and other races								
Men 20 yrs. & over	345	330	287	611	566	551	496	495
Women 20 yrs. & over	327	343	332	500	522	564	550	544
			Unemployment rate					
White								
Men 20 yrs. & over	4.0	3.6	2.9	6.2	5.4	4.6	3.7	3.6
Women 20 yrs. & over	5.3	4.9	4.3	7.5	6.8	6.2	5.2	5.0
Negro and other races								
Men 20 yrs. & over	7.2	6.8	5.7	11.7	10.6	10.0	8.7	8.4
Women 20 yrs. & over	8.7	8.8	8.2	11.5	11.3	11.7	10.6	10.1

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973); 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 1; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Tables 3 and 4, and similar documents for previous years; and special release.

TABLE V-4. FULL AND PART-TIME STATUS OF THE CIVILIAN LABOR FORCE, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: 1971, 1972, AND 1975-1979

(In thousands)

	1971	1972	1975	1976	1977	1978	1979
			Michigan				
			Full-time labor force				
Employed:							
Full-time schedules	2,763	2,876	2,740	2,904	3,061	3,201	3,241
Part-time-econ. reason	107	107	155	157	157	148	148
Unemployed (looking for full-time work):							
Number	212	198	409	296	262	223	280
Pct. full-time force	6.9	6.2	12.4	8.8	7.5	6.2	7.6
TOTAL	3,082	3,181	3,305	3,358	3,479	3,571	3,669
			Part-time labor force				
Employed on voluntary part-time	471	490	536	561	564	564	589
Unemployed (looking for part-time work):							
Number	64	63	80	78	75	67	55
Pct. part-time force	12.0	11.5	13.0	12.2	11.7	10.6	8.6
TOTAL	535	554	617	638	639	631	644
			United States				
			Full-time labor force				
Employed:							
Full-time schedules	65,454	67,635	68,911	71,417	73,987	77,396	79,624
Part-time, econ. reason	2,676	2,624	3,748	3,540	3,530	3,428	3,478
Unemployed (looking for full-time work):							
Number	3,949	3,769	6,437	5,874	5,432	4,706	4,639
Pct. full-time force	5.5	5.1	8.1	7.3	6.5	5.5	5.3
TOTAL	72,078	74,028	79,096	80,831	82,950	85,530	87,741
			Part-time labor force				
Employed on voluntary part-time	10,990	11,443	12,124	12,528	13,028	13,549	13,843
Unemployed (looking for part-time work):							
Number	1,044	1,071	1,393	1,414	1,423	1,341	1,325
Pct. part-time force	8.7	8.6	10.3	10.1	9.8	9.0	8.7
TOTAL	12,034	12,513	13,517	13,942	14,451	14,890	15,167

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, published in Washington, D.C., for the following years: 1971, Report 02 (1972), Table 4; 1972, Report 421 (1973), Table 4; 1975, Report 481, (1977), Table 7; 1976, Report 504 (1977), Table 4; State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Tabie 2; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Table 8, and similar documents for previous years; and special release.

TABLE V-5. EMPLOYMENT STATUS, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY OCCUPATION GROUP: 1977-1979

Occupation group	1977			1978			1979		
	Employed (000)	Unemployed Number (000)	Unemployed Rate (percent)	Employed (000)	Unemployed Number (000)	Unemployed Rate (percent)	Employed (000)	Unemployed Number (000)	Unemployed Rate (percent)
				Michigan					
Professional and technical	553	18	3.2	549	11	2.0	567	12	2.1
Managers and administrators, except farm	334	8	2.5	361	9	2.4	353	10	2.7
Sales workers	219	16	6.8	223	14	5.8	225	12	5.1
Clerical workers	621	48	7.1	663	30	4.3	703	40	5.4
TOTAL white-collar	1,727	91	5.0	1,797	64	3.4	1,848	74	3.9
Craft workers	544	30	5.3	559	27	4.6	548	37	6.3
Operatives, exc. transport	564	57	9.2	605	57	8.6	626	82	11.6
Transport equip. operatives	153	13	7.7	154	13	7.6	168	13	7.3
Nonfarm laborers	182	31	14.4	174	25	12.4	178	30	14.5
TOTAL blue-collar	1,442	130	8.3	1,493	121	7.5	1,520	163	9.7
Service workers	538	62	10.4	561	54	8.8	556	60	9.7
Farm workers	74	5	6.8	63	3	4.0	54	4	6.4
TOTAL	3,781	337	8.2	3,913	289	6.9	3,978	335	7.8
				United States					
Professional and tech.	13,692	426	3.0	14,245	381	2.6	15,050	373	2.4
Managers and administrators, exc. farm	9,662	276	2.8	10,105	214	2.1	10,516	225	2.1

TABLE V-5. EMPLOYMENT STATUS, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY OCCUPATION GROUP: 1977-1979 (cont.)

Occupation group	1977 Employed (000)	1977 Unemployed Number (000)	1977 Unemployed Rate (percent)	1978 Employed (000)	1978 Unemployed Number (000)	1978 Unemployed Rate (percent)	1979 Employed (000)	1979 Unemployed Number (000)	1979 Unemployed Rate (percent)
				United States (cont.)					
Sales workers	5,728	318	5.3	5,951	256	4.1	6,163	252	3.9
Clerical workers	16,106	1,004	5.9	16,904	866	4.9	17,613	853	4.6
TOTAL white-collar	45,187	2,024	4.3	47,205	1,717	3.5	49,342	1,703	3.3
Craft workers	11,881	708	5.6	12,386	603	4.6	12,880	604	4.5
Operatives, exc. transport	10,354	1,087	9.5	10,875	960	8.1	10,909	1,000	8.4
Transport equip. operatives	3,476	246	6.6	3,541	195	5.2	3,612	206	5.4
Nonfarm laborers	4,500	616	12.0	4,729	566	10.7	4,665	566	10.8
TOTAL blue-collar	30,211	2,656	8.1	31,531	2,323	6.9	32,066	2,377	6.9
Service workers	12,392	1,102	8.2	12,839	1,029	7.4	12,834	980	7.1
Farm workers	2,756	133	4.6	2,798	110	3.8	2,703	106	3.8
TOTAL	90,546	6,855	7.0	94,373	6,047	6.0	96,945	5,963	5.8

SOURCE: Bureau of Labor Statistics, State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 3; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Tables 11 and 22, and similar documents for previous years; and special release.

TABLE V-6. OCCUPATIONAL DISTRIBUTION OF EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY SEX AND RACE: 1978 AND 1979

	Percentage of total employment									
	1978					1979				
	Men	Women	White (both sexes)	Black/other (both sexes)	Total	Men	Women	White (both sexes)	Black/other (both sexes)	Total
					Michigan					
White-collar workers										
Professional and technical	13.8	14.3	14.4	10.9	14.0	13.9	14.8	14.4	12.9	14.3
Managers and administrators, except farm	12.0	5.1	9.8	4.7	9.2	11.6	4.6	9.5	4.2	8.9
Sales workers	5.1	6.7	6.1	2.8	5.7	4.9	6.8	5.9	3.5	5.7
Clerical workers	5.4	34.4	16.9	17.2	16.9	6.0	34.8	17.5	19.0	17.7
TOTAL	36.3	60.5	47.2	35.6	45.9	36.4	61.2	47.3	39.6	46.5
Blue-collar workers										
Craft and kindred workers	22.7	1.5	14.9	9.0	14.3	22.1	1.6	14.3	9.6	13.8
Operatives, except transport	18.5	10.9	14.4	24.0	15.5	18.9	11.2	15.0	21.5	15.7
Transport equip. operatives	6.0	.8	3.9	4.3	3.9	6.2	1.3	4.1	5.3	4.2
Nonfarm laborers	6.4	1.5	4.3	5.4	4.4	6.4	1.6	4.4	5.3	4.5
TOTAL	53.6	14.7	37.6	42.7	38.1	53.6	15.7	37.8	41.7	38.2
Service workers	8.0	23.9	13.4	21.7	14.3	8.3	22.3	13.4	18.4	14.0
Farm workers	2.1	1.0	1.8	(a)	1.6	1.8	.8	1.5	.3	1.4
TOTAL EMPLOYED	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
					United States					
White-collar workers										
Professional and technical	14.7	15.6	15.5	11.7	15.1	15.1	16.1	15.9	12.2	15.5
Managers and administrators, except farm	14.0	6.1	11.4	4.8	10.7	14.0	6.4	11.6	5.2	10.8

TABLE V-6. OCCUPATIONAL DISTRIBUTION OF EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES, BY SEX AND RACE: 1978 AND 1979 (cont.)

	Percentage of total employment									
	1978					1979				
	Men	Women	White (both sexes)	Black/other (both sexes)	Total	Men	Women	White (both sexes)	Black/other (both sexes)	Total
	United States (cont.)									
Sales workers	5.9	6.9	6.7	2.8	6.3	6.0	6.9	6.8	2.8	6.4
Clerical workers	6.2	34.6	18.0	16.9	17.9	6.1	35.0	18.2	17.7	18.2
TOTAL	40.8	63.2	51.8	36.2	50.0	41.2	64.4	52.2	37.9	50.9
Blue-collar workers										
Craft and kindred workers	21.1	1.8	13.7	8.8	13.1	21.5	1.8	13.8	9.4	13.3
Operatives, except transport	11.8	11.1	11.0	15.5	11.5	11.6	10.8	10.8	15.1	11.3
Transport equip. operatives	5.9	.7	3.6	5.0	3.8	5.9	.7	3.6	4.8	3.7
Nonfarm laborers	7.6	1.3	4.6	7.9	5.0	7.3	1.3	4.5	7.4	4.8
TOTAL	46.4	14.8	32.9	37.2	33.4	46.3	14.6	32.6	36.7	33.1
Service workers	8.7	20.7	12.3	24.1	13.6	8.5	19.8	12.0	23.2	13.2
Farm workers	4.1	1.3	3.0	2.4	3.0	3.9	1.2	2.9	2.2	2.8
TOTAL EMPLOYES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of Labor Statistics, Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Table 22, similar documents for previous years; and special release.

a. Less than one percent.

TABLE V-7. UNEMPLOYED PERSONS, BY DURATION OF UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE IN MICHIGAN AND THE UNITED STATES: 1976-1979

	Michigan				United States			
	1976	1977	1978	1979	1976	1977	1978	1979
Thousands of persons	374	337	289	335	7,288	6,855	6,047	5,963
Percentage distribution by duration of unemployment:								
Less than 15 weeks	63.7	71.3	79.5	76.4	67.9	72.2	77.2	79.8
15-26 weeks	15.8	12.3	11.3	13.5	13.8	13.1	12.3	11.5
27-51 weeks	11.0	6.9	4.4	4.5	9.6	7.5	5.3	4.5
52 weeks or longer	9.5	9.5	4.7	5.7	8.8	7.3	5.1	4.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1976, Report 504 (Washington, D.C.: 1977), Table 7; State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 5; Employment and Earnings, vol. 24, no. 1 (Washington, D.C.: January 1976), Table 17; Employment and Earnings, vol. 26, no. 1 (Washington, D.C.: January 1978), Table 17; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Table 17; and special release.

TABLE V-8. UNEMPLOYED PERSONS, BY REASON FOR UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE IN MICHIGAN AND THE UNITED STATES: 1976-1979

(In thousands)

	Michigan				United States			
	1976	1977	1978	1979	1976	1977	1978	1979
Job losers:								
On lay off	85	n.a.	57	91	1,039	853	698	835
Others	90	n.a.	53	72	2,585	2,249	1,816	1,720
TOTAL	175	133	110	163	3,625	3,103	2,514	2,555
Job leavers	50	44	36	44	886	889	851	854
Reentrants	103	112	96	93	1,895	1,926	1,814	1,758
New entrants	46	48	47	35	882	938	867	797
TOTAL UNEMPLOYED	374	337	289	335	7,288	6,855	6,047	5,963

SOURCE: Bureau of Labor Statistics, State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 6; Employment and Earnings, vol. 24, no. 1 (Washington, D.C.: January 1977), Table 11; Employment and Earnings, vol. 27, no. 1 (Washington, D.C.: January 1980), Table 13; and special release.

n.a.: not available.

TABLE V-9. MICHIGAN AND U.S. CIVILIAN LABOR FORCE, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1970-1980

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	3,566	3,551	3,552	3,562	3,570	3,572	3,674	3,694	3,571	3,643	3,573	3,628
1971	3,613	3,611	3,633	3,568	3,592	3,631	3,687	3,679	3,584	3,638	3,618	3,603
1972	3,623	3,643	3,646	3,662	3,768	3,765	3,748	3,731	3,654	3,741	3.736	3,745
1973	3,722	3,758	3,740	3,723	3,781	3,860	3,887	3,856	3,777	3,802	3,862	3,923
1974	3,870	3,875	3,850	3,832	3,834	3,882	3,953	3,937	3,859	3,925	3,919	3,863
1975	3,908	3,912	3,942	3,888	3,844	3,926	3,904	3,924	3,869	3,864	3,940	3,893
1976	3,869	3,967	3,965	3,950	3,970	4,021	4,048	4,090	4,023	4,024	4,052	4,022
1977	4,027	4,097	4,104	4,067	4,050	4,179	4,152	4,169	4,132	4,180	4,189	4,144
1978	4,170	4,168	4,134	4,164	4,164	4,249	4,236	4,209	4,191	4,189	4,235	4,277
1979	4,250	4,280	4,282	4,244	4,316	4,372	4,391	4,307	4,315	4,327	4,353	4,323
1980	4,266	4,287	4,239	4,233	4,321							
						United States						
1970	80,719	81,283	81,689	81,960	81,740	84,050	84,800	84,115	82,546	83,175	83,347	83,152
1971	82,652	82,702	82,666	82,898	83,105	84,966	86,012	85,680	84,135	84,635	85,018	84,883
1972	84,553	84,778	85,411	85,323	85,569	88,054	88,616	88,362	86,694	87,177	86,968	86,998
1973	85,719	86,682	87,326	87,473	87,558	90,413	90,917	90,129	89,007	89,757	89,885	89,702
1974	89,095	89,433	89,633	89,494	89,929	92,546	93,273	92,459	91,447	91,893	91,609	91,327
1975	91,149	90,913	91,394	91,369	91,767	94,015	94,861	94,310	92,794	93,268	92,787	92,731
1976	92,666	92,797	93,112	93,474	93,583	96,115	97,186	96,690	94,974	95,531	95,638	95,517
1977	94,704	95,340	95,771	95,826	96,193	99,135	99,314	99,073	97,684	98,451	98,819	98,503
1978	97,950	97,924	98,443	98,866	99,309	102,178	102,639	102,047	100,838	101,555	101,659	101,632
1979	100,867	101,249	101,665	101,236	101,473	104,153	104,995	104,363	103,373	103,939	103,719	103,884
1980	103,188	103,257	103,351	103,412	104,027							

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures represent the sum of civilian employment and unemployment and are not seasonally adjusted.

TABLE V-10. MICHIGAN AND U.S. CIVILIAN EMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1970-1980

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	3,373	3,343	3,339	3,345	3,363	3,349	3,371	3,425	3,332	3,376	3,299	3,351
1971	3,307	3,295	3,311	3,297	3,360	3,351	3,379	3,417	3,335	3,379	3,384	3,325
1972	3,336	3,353	3,348	3,368	3,478	3,463	3,439	3,491	3,413	3,553	3,533	3,564
1973	3,457	3,465	3,487	3,517	3,585	3,639	3,647	3,651	3,613	3,623	3,662	3,690
1974	3,647	3,593	3,526	3,554	3,579	3,609	3,656	3,659	3,585	3,668	3,584	3,481
1975	3,372	3,343	3,353	3,357	3,370	3,367	3,393	3,465	3,439	3,475	3,556	3,472
1976	3,472	3,542	3,544	3,556	3,601	3,621	3,660	3,709	3,687	3,722	3,713	3,686
1977	3,669	3,696	3,705	3,770	3,752	3,826	3,785	3,784	3,824	3,909	3,865	3,853
1978	3,830	3,869	3,837	3,890	3,891	3,950	3,928	3,871	3,948	3,959	3,955	3,989
1979	3,909	3,929	3,941	3,879	4,006	4,056	4,053	3,983	4,006	4,013	4,009	3,955
1980	3,827	3,806	3,773	3,710	3,714							
						United States						
1970	77,313	77,489	77,957	78,408	78,357	79,382	80,291	79,895	78,254	78,916	78,740	78,515
1971	77,238	77,260	77,492	78,204	78,710	79,477	80,682	80,619	79,295	80,065	80,203	80,188
1972	79,106	79,366	80,195	80,626	81,225	82,628	83,443	83,506	82,035	82,707	82,702	82,882
1973	81,043	81,837	82,814	83,299	83,759	85,566	86,367	85,920	84,842	85,994	85,828	85,644
1974	84,087	84,293	84,877	85,193	85,785	87,166	88,014	87,575	86,244	86,849	85,924	85,220
1975	82,970	82,604	83,036	83,549	84,145	85,446	86,651	86,613	85,273	86,024	85,556	85,536
1976	84,492	84,763	85,587	86,584	87,279	88,460	89,609	89,368	87,948	88,698	88,543	88,494
1977	86,856	87,231	88,215	89,258	90,042	91,682	92,372	92,315	91,247	92,230	92,473	92,623
1978	91,053	91,185	91,964	93,180	93,851	95,852	96,202	96,116	95,041	96,095	96,029	95,906
1979	94,436	94,765	95,501	95,675	96,220	97,917	98,891	98,226	97,576	98,158	97,943	98,047
1980	96,145	96,264	96,546	96,566	96,709							

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Employed persons comprise two groups. The first includes all those who were 16 years old or older and, during the survey week, did any work at all as paid employees, or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers in a family-operated enterprise. The second includes all those who did not work but had jobs or businesses from which they were temporarily absent due to illness, bad weather, vacation, labor-management dispute, or various personal reasons--whether or not they were paid by their employers for the time off and whether or not they were seeking other jobs. Data are not seasonally adjusted.

TABLE V-11. MICHIGAN AND U.S. CIVILIAN UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1970-1980

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	193	208	213	217	208	224	302	269	239	267	275	277
1971	307	316	323	272	234	279	308	262	249	259	234	277
1972	287	290	298	294	290	302	309	240	241	188	201	181
1973	264	293	254	206	195	221	241	204	164	179	200	233
1974	223	284	324	278	255	273	296	277	275	258	334	382
1975	536	569	588	530	472	558	511	459	430	388	384	422
1976	397	424	421	395	369	400	388	381	336	303	339	336
1977	358	401	399	297	298	353	367	384	309	271	324	291
1978	340	299	297	275	273	299	308	338	243	230	280	288
1979	341	351	341	365	310	316	338	324	309	314	344	368
1980	439	481	466	523	607							
						United States						
1970	3,406	3,794	3,732	3,552	3,383	4,663	4,509	4,220	4,292	4,259	4,607	4,637
1971	5,414	5,442	5,174	4,694	4,395	5,489	5,330	5,061	4,840	4,570	4,815	4,695
1972	5,447	5,412	5,216	4,697	4,344	5,426	5,173	4,856	4,659	4,470	4,266	4,116
1973	4,676	4,845	4,512	4,174	3,799	4,847	4,550	4,209	4,165	3,763	4,057	4,058
1974	5,008	5,140	4,756	4,301	4,144	5,380	5,259	4,884	5,203	5,044	5,685	6,107
1975	8,179	8,309	8,358	7,820	7,622	8,569	8,210	7,697	7,521	7,244	7,231	7,195
1976	8,174	8,034	7,525	6,890	6,304	7,655	7,577	7,322	7,026	6,833	7,095	7,023
1977	7,848	8,109	7,556	6,568	6,151	7,453	6,941	6,757	6,437	6,221	6,346	5,880
1978	6,897	6,739	6,479	5,685	5,457	6,326	6,438	5,931	5,797	5,460	5,629	5,725
1979	6,431	6,484	6,165	5,561	5,253	6,235	6,104	6,137	5,798	5,781	5,776	5,836
1980	7,043	6,993	6,805	6,846	7,318							

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Unemployed persons include those 16 years old or older who did not work at all during the survey week, were looking for work, and were available for work during the reference period, except for temporary illness. This includes those who were available for work and waiting to be recalled from layoff or were waiting to report to a new wage or salary job scheduled to start within the following 30 days.

TABLE V-12. MICHIGAN AND U.S. UNEMPLOYMENT RATES, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1970-1980

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	5.4	5.8	6.0	6.1	5.8	6.3	8.2	7.3	6.7	7.3	7.7	7.6
1971	8.5	8.7	8.9	7.6	6.5	7.7	8.4	7.1	7.0	7.1	6.5	7.7
1972	7.9	8.0	8.2	8.0	7.7	8.0	8.2	6.4	6.6	5.0	5.4	4.8
1973	7.1	7.8	6.8	5.5	5.2	5.7	6.2	5.3	4.3	4.7	5.2	5.9
1974	5.8	7.3	8.4	7.2	6.7	7.0	7.5	7.0	7.1	6.6	8.5	9.9
1975	13.7	14.5	14.9	13.6	12.3	14.2	13.1	11.7	11.1	10.0	9.8	10.8
1976	10.3	10.7	10.6	10.0	9.3	9.9	9.6	9.3	8.4	7.5	8.4	8.4
1977	8.9	9.8	9.7	7.3	7.3	8.4	8.8	9.2	7.5	6.5	7.7	7.0
1978	8.1	7.2	7.2	6.6	6.6	7.0	7.3	8.0	5.8	5.5	6.6	6.7
1979	8.0	8.2	7.9	8.6	7.2	7.2	7.7	7.5	7.2	7.3	7.9	8.5
1980	10.3	11.2	11.0	12.4	14.0							
						United States						
1970	4.2	4.7	4.6	4.3	4.1	5.6	5.3	5.0	5.2	5.1	5.5	5.6
1971	6.6	6.6	6.3	5.7	5.3	6.5	6.2	5.9	5.8	5.4	5.7	5.5
1972	6.4	6.4	6.1	5.5	5.1	6.2	5.8	5.5	5.4	5.1	4.9	4.7
1973	5.5	5.6	5.2	4.8	4.3	5.4	5.0	4.7	4.7	4.2	4.5	4.5
1974	5.6	5.7	5.3	4.8	4.6	5.8	5.6	5.3	5.7	5.5	6.2	6.7
1975	9.0	9.1	9.1	8.6	8.3	9.1	8.7	8.2	8.1	7.8	7.8	7.8
1976	8.8	8.7	8.1	7.4	6.7	8.0	7.8	7.6	7.4	7.2	7.4	7.4
1977	8.3	8.5	7.9	6.9	6.4	7.5	7.0	6.8	6.6	6.3	6.4	6.0
1978	7.0	6.9	6.6	5.8	5.5	6.2	6.3	5.8	5.7	5.4	5.5	5.6
1979	6.4	6.4	6.1	5.5	5.2	6.0	5.8	5.9	5.6	5.6	5.6	5.6
1980	6.8	6.8	6.6	6.6	7.0							

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures show unemployment as a percentage of civilian labor force and are not seasonally adjusted.

TABLE V-13. MICHIGAN AND U.S. NONAGRICULTURAL WAGE AND SALARY JOBS, DATA BASED ON AN EMPLOYER SURVEY, BY MONTH: 1970-1980

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	3,037	3,004	3,023	3,040	3,065	3,078	2,987	2,990	3,045	2,880[a]	2,851[a]	3,031
1971	2,964	2,944	2,952	2,971	3,013	3,033	2,942	2,954	3,025	3,047	3,041	3,060
1972	3,021	3,021	3,036	3,070	3,121	3,137	3,028	3,104	3,179	3,208	3,218	3,235
1973	3,181	3,186	3,208	3,251	3,289	3,316	3,268	3,275	3,322	3,348	3,375	3,369
1974	3,260	3,215	3,218	3,243	3,283	3,324	3,296	3,310	3,346	3,328	3,306	3,210
1975	3,082	3,035	3,047	3,074	3,126	3,244	3,117	3,146	3,191	3,216	3,224	3,231
1976	3,108	3,126	3,148	3,206	3,231	3,260	3,213	3,245	3,287	3,293	3,325	3,333
1977	3,285	3,299	3,329	3,371	3,426	3,465	3,443	3,440	3,509	3,537	3,548	3,564
1978	3,483	3,487	3,522	3,577	3,622	3,646	3,603	3,592	3,671	3,694	3,702	3,712
1979	3,611	3,621	3,643	3,621	3,682	3,685	3,614	3,548	3,618	3,645	3,619	3,626
1980	3,506	3,496	3,507	3,444								
						United States						
1970	70,104	70,208	20,658	70,972	70,995	71,636	70,873	70,775	71,134	70,899	70,859	71,436
1971	69,799	69,720	70,084	70,672	71,165	71,879	71,066	71,173	71,809	72,056	72,357	72,755
1972	71,359	71,546	72,138	72,770	73,402	74,383	73,377	73,929	74,491	75,169	75,581	75,955
1973	74,491	74,869	75,422	76,008	76,591	77,508	76,568	76,971	77,562	78,185	78,587	78,715
1974	76,922	77,039	77,362	77,911	78,513	79,210	78,311	78,459	78,959	79,258	78,937	78,295
1975	76,066	75,641	75,686	76,018	76,649	77,143	76,466	76,993	77,602	78,158	78,312	78,600
1976	77,252	77,482	78,092	78,919	79,414	80,043	79,272	79,537	80,244	80,479	80,839	81,016
1977	79,427	79,636	80,493	81,405	82,227	83,172	82,496	82,776	83,721	84,211	84,645	84,868
1978	83,193	83,476	84,455	85,726	86,494	87,465	86,578	86,862	87,483	88,100	88,622	88,893
1979	87,128	87,331	88,207	88,820	89,671	90,541	89,618	89,673	90,211	90,678	90,902	91,009
1980	89,285	89,417	89,942	90,111								

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: These figures represent the number of jobs reported by employers. A single person who holds more than one job may be counted more than once in this survey. Excluded are unpaid family workers, domestic servants in private homes, proprietors and other self-employed persons, and farm workers.
a. A prolonged labor dispute occurred at GM plants in Michigan and the rest of the nation. In Michigan, there were about 180,000 jobs not counted because of labor disputes during these two months.

TABLE V-14. TOTAL INSURED UNEMPLOYMENT AND INSURED UNEMPLOYMENT RATES IN MICHIGAN AND THE UNITED STATES: 1952-1978

(In thousands)

Year	Michigan		United States	
	Total[a]	Rate[b]	Total[a]	Rate[b]
1952	54.6	3.2	1,024.1	2.9
1953	40.8	2.2	994.7	2.8
1954	113.0	6.2	1,864.9	5.2
1955	51.4	2.9	1,253.8	3.5
1956	99.7	5.3	1,211.9	3.2
1957	92.9	4.8	1,449.8	3.6
1958	199.8	11.2	2,508.9	6.4
1959	88.4	5.3	1,682.5	4.4
1960	93.9	5.3	1,905.8	4.8
1961	131.9	7.3	2,275.2	5.6
1962	76.4	4.5	1,767.4	4.4
1963	62.5	3.5	1,775.3	4.3
1964	52.1	2.9	1,605.4	3.8
1965	38.2	2.0	1,327.6	3.0
1966	40.5	2.0	1,061.4	2.3
1967	62.2	2.7	1,204.5	2.5
1968	55.9	2.4	1,110.6	2.2
1969	52.8	2.2	1,100.0	2.1
1970	117.4	4.8	1,804.6	3.4
1971	125.6	5.3	2,150.5	4.1
1972	102.6	4.4	1,848.5	3.5
1973	79.1	3.1	1,632.5	2.7
1974	163.4	5.9	2,248.5	3.5
1975	255.3	9.3	3,991.9	6.0
1976	161.4	5.7	2,991.5	4.5
1977	139.3	4.6	2,654.9	3.9
1978	127.5	4.0	2,355.9	3.3

SOURCE: U.S. Department of Labor, Manpower Report of the President, 1964 and 1974 (Washington, D.C.: annually), for 1974, Tables D-5 and D-6 (publication was discontinued in 1975); and U.S. Department of Labor, Employment and Training Report of the President, 1979 (Washington, D.C.: 1979), Table D-5.

a. Covered under state programs.
b. Insured unemployment as a percentage of average covered employment. Prior to 1954, covered employment for the same calendar year as insured unemployment was used as the base; from 1954 through 1958, the rates were based on covered employment for the fiscal year (six-month lag); beginning in 1959, the rates are based on covered employment for the previous calendar year (twelve-month lag).

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Alcona, Iosco						
1970	9,050	625	6.9	2,275	1,375	2,400
1971	9,325	725	7.8	2,425	1,050	2,575
1972	9,425	850	9.0	2,425	1,125	2,575
1973	9,275	950	10.2	2,375	1,125	2,625
1974	10,625	975	9.2	2,475	1,075	3,225
1975	11,250	1,675	14.9	2,550	1,050	3,275
1976	11,675	1,375	11.8	3,075	1,425	3,500
1977	13,075	1,525	11.7	2,475	1,250	3,475
1978	12,600	1,500	11.9	2,375	1,400	3,750
1979	13,250	1,550	11.7	2,325	1,600	3,950
Alger - see Marquette, Alger for 1970-1974						
Alger						
1975	3,450	550	15.9	550	700	825
1976	3,750	525	14.0	575	750	900
1977	3,800	525	13.8	575	900	850
1978	3,400	425	12.5	550	850	825
1979	3,500	450	12.9	525	925	775
Allegan						
1970	26,550	1,575	5.9	2,775	5,925	4,075
1971	26,800	2,025	7.6	3,125	5,725	4,050
1972	28,850	1,650	5.7	3,300	6,600	4,375
1973	30,675	1,625	5.3	3,375	7,375	4,650
1974	31,525	1,900	6.0	3,325	7,350	5,000
1975	30,725	3,500	11.4	3,550	6,650	5,025
1976	31,275	2,450	7.8	6,675	6,550	5,675
1977	31,025	2,175	7.0	3,625	7,000	6,250
1978	33,075	1,900	5.7	3,600	7,425	6,800
1979	34,250	2,275	6.6	3,800	7,625	6,975
Alpena						
1970	11,250	1,350	12.0	1,750	2,800	3,275
1971	11,700	1,450	12.4	1,875	2,750	3,500
1972	12,475	1,625	13.0	2,075	2,600	3,875
1973	13,000	1,675	12.9	2,100	2,725	4,100
1974	13,675	1,825	13.3	2,150	3,025	4,375
1975	14,175	2,700	19.0	2,325	2,625	4,475
1976	14,450	2,325	16.1	4,575	2,700	4,900
1977	14,825	2,125	14.3	2,425	2,700	5,350
1978	15,600	1,950	12.5	2,425	2,850	5,600
1979	15,325	1,725	11.3	2,350	2,800	5,600
Antrim						
1970	5,000	425	8.5	650	1,300	825
1971	4,975	350	7.0	675	1,125	1,025
1972	5,375	450	8.4	775	1,075	1,200
1973	6,000	450	7.5	800	1,425	1,325
1974	6,200	625	10.1	800	1,325	1,375
1975	6,225	950	15.3	900	1,125	1,375
1976	6,450	800	12.4	1,675	1,275	1,350
1977	6,825	725	10.6	900	1,300	1,400
1978	6,950	625	9.0	925	1,375	1,550
1979	7,450	750	10.1	950	1,450	1,650

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Arenac						
1970	4,450	250	5.6	625	975	925
1971	4,875	275	5.6	650	1,250	975
1972	5,025	425	8.5	725	1,200	975
1973	4,950	375	7.6	725	1,100	1,075
1974	5,100	575	11.3	700	925	1,175
1975	6,275	1,125	17.9	725	850	1,200
1976	7,025	875	12.5	1,450	900	1,450
1977	7,700	825	10.7	875	975	1,500
1978	6,675	725	10.9	750	800	1,425
1979	6,500	550	8.5	750	750	1,350
Baraga						
1970	2,675	250	9.3	700	725	450
1971	2,675	250	9.3	700	700	475
1972	2,750	275	10.0	700	725	525
1973	2,725	200	7.3	625	725	600
1974	2,800	250	8.9	625	725	600
1975	3,050	425	13.9	650	600	625
1976	3,200	475	14.8	1,150	575	700
1977	2,850	400	14.0	700	775	725
1978	3,250	350	10.8	775	850	900
1979	3,350	375	11.2	775	800	925
Barry, Calhoun						
1970	76,400	4,500	5.9	10,300	25,700	25,200
1971	77,300	5,500	7.1	10,400	24,900	24,900
1972	78,300	5,200	6.6	10,900	25,400	26,000
1973	79,400	4,600	5.8	11,400	26,500	27,000
1974	79,700	5,600	7.0	11,000	26,000	26,900
1975	81,000	9,900	12.2	11,400	23,000	26,900
1976	81,200	8,000	9.9	16,600	23,600	28,000
1977	81,400	6,800	8.4	12,500	23,800	29,300
1978	80,800	5,400	6.7	12,100	24,300	30,600
1979	80,300	5,500	6.8	12,400	23,500	30,500
Bay						
1970	46,500	3,700	8.0	4,400	10,500	15,000
1971	46,400	4,500	9.7	4,300	9,800	15,400
1972	46,800	4,300	9.2	4,500	9,600	16,400
1973	47,800	3,000	6.3	4,700	10,200	17,800
1974	48,400	3,900	8.1	4,700	9,900	18,100
1975	49,700	6,700	13.5	5,000	9,300	18,100
1976	50,400	4,900	9.7	9,500	10,500	18,600
1977	52,200	4,200	8.0	5,200	11,000	18,900
1978	50,300	3,300	6.6	4,800	11,100	19,100
1979	51,200	3,900	7.6	5,200	10,600	19,200
Benzie						
1970	3,475	425	12.2	400	575	925
1971	3,600	350	9.7	425	550	1,025
1972	3,800	425	11.2	500	525	1,075
1973	3,775	425	11.3	550	475	1,150
1974	3,825	375	9.8	600	500	1,150

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Benzie (cont.)						
1975	3,950	550	13.9	650	500	1,100
1976	4,100	450	11.0	675	550	1,300
1977	4,125	475	11.5	675	550	1,425
1978	4,175	375	9.0	675	625	1,450
1979	4,450	550	12.4	675	650	1,450
Berrien						
1970	70,300	4,000	5.7	6,700	29,600	23,700
1971	72,000	4,900	6.8	6,800	28,300	25,300
1972	74,000	4,500	6.1	7,000	30,200	26,800
1973	75,500	4,500	6.0	7,100	31,500	27,600
1974	75,000	5,500	7.3	7,700	29,200	28,300
1975	74,400	11,600	15.6	8,300	25,400	25,900
1976	73,300	8,400	11.5	8,500	25,500	28,200
1977	75,900	6,900	9.1	8,800	26,500	30,200
1978	74,000	6,200	8.4	8,300	26,100	30,700
1979	74,600	6,600	8.8	8,600	25,000	30,700
Branch						
1970	16,650	1,150	6.9	3,100	3,750	3,175
1971	18,025	1,225	6.8	3,200	3,650	3,400
1972	17,350	1,325	7.6	3,350	3,900	3,600
1973	19,125	1,050	5.5	3,450	4,375	3,975
1974	19,275	1,400	7.3	3,500	4,100	4,075
1975	19,875	3,025	15.2	3,475	3,450	3,900
1976	20,325	2,000	9.8	3,750	4,150	4,475
1977	19,925	1,725	8.7	3,725	4,750	4,875
1978	23,225	1,375	5.9	3,650	5,425	5,050
1979	23,175	1,800	7.8	3,750	5,325	4,750
Calhoun - see Barry, Calhoun						
Cass						
1970	17,800	975	5.5	1,625	3,525	2,375
1971	17,450	1,275	7.3	1,650	3,300	2,400
1972	18,825	1,100	5.8	1,675	3,800	2,500
1973	20,725	1,050	5.1	1,725	4,325	2,850
1974	19,650	1,525	7.8	2,000	3,350	3,150
1975	19,075	2,700	14.2	2,125	2,975	3,125
1976	20,550	1,775	8.6	2,125	3,900	3,525
1977	23,050	1,700	7.4	2,325	4,175	3,675
1978	24,675	1,425	5.8	2,100	4,825	3,750
1979	24,200	1,825	7.5	2,100	4,275	3,875
Charlevoix						
1970	6,700	675	10.1	650	2,325	1,575
1971	6,600	675	10.2	675	2,050	1,625
1972	6,775	650	9.6	775	1,975	1,775
1973	7,125	650	9.1	800	2,175	1,900
1974	7,925	975	12.3	925	2,375	2,050
1975	8,525	1,425	16.7	1,025	1,975	2,025
1976	8,900	1,100	12.4	1,025	2,275	2,100
1977	8,875	1,050	11.8	1,025	2,600	2,450
1978	9,500	950	10.0	1,050	2,725	2,775
1979	9,900	900	9.1	1,125	2,800	2,875

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Cheybogan						
1970	6,825	1,325	19.4	600	1,175	1,675
1971	7,100	1,075	15.1	650	1,150	1,950
1972	7,450	1,200	16.1	700	1,175	2,050
1973	7,650	1,300	17.0	750	1,200	2,075
1974	8,650	1,525	17.6	800	1,150	2,550
1975	9,100	2,100	23.1	850	1,000	2,650
1976	8,825	1,800	20.4	900	1,050	2,850
1977	9,300	1,900	20.4	900	1,100	3,050
1978	9,375	1,875	20.0	900	1,175	3,175
1979	10,575	1,550	14.7	900	1,300	3,275
Chippewa						
1970	11,150	1,525	15.0	3,425	125	3,550
1971	11,000	1,900	17.3	3,925	200	3,625
1972	10,800	1,625	15.0	3,875	200	3,650
1973	10,675	1,825	17.1	3,800	250	3,600
1974	10,975	1,825	16.6	4,000	250	3,625
1975	11,225	2,350	20.9	4,400	250	3,650
1976	11,750	2,475	21.1	4,325	425	3,950
1977	12,675	2,325	18.3	4,275	475	4,150
1978	12,300	2,325	18.9	3,550	225	4,325
1979	11,500	2,075	18.0	3,600	250	3,975
Clare						
1970	6,000	575	9.6	1,050	825	1,350
1971	6,750	900	13.3	1,075	700	1,675
1972	6,775	1,050	15.5	1,125	500	1,850
1973	7,325	850	11.6	1,175	825	1,900
1974	7,950	1,025	12.9	1,200	825	2,100
1975	8,125	1,500	18.5	1,275	700	2,050
1976	8,075	1,200	14.9	1,275	900	2,200
1977	9,550	1,250	13.1	1,250	975	2,325
1978	9,725	1,000	10.3	1,275	1,150	2,500
1979	9,850	1,025	10.4	1,275	1,050	2,675
Clinton, Eaton, Ingham, Ionia						
1970	177,600	11,500	6.5	50,300	36,700	58,100
1971	183,500	11,800	6.4	50,800	39,600	60,700
1972	190,500	11,800	6.2	52,500	39,700	66,700
1973	194,100	9,700	5.0	53,900	43,100	68,800
1974	197,300	15,200	7.7	57,400	37,700	69,500
1975	200,300	23,900	11.9	59,500	35,000	69,800
1976	208,100	18,000	8.6	60,800	37,800	71,300
1977	221,500	17,000	7.7	63,500	42,000	74,600
1978	255,700	14,400	6.4	64,800	44,500	79,500
1979	235,000	15,700	6.7	66,700	44,700	83,200
Crawford						
1970	2,650	275	10.4	475	550	725
1971	2,875	275	9.6	500	500	875
1972	3,100	425	13.7	525	475	925
1973	3,275	425	13.0	550	600	950
1974	4,025	425	10.6	575	900	1,175
1975	4,175	675	16.2	625	675	1,200
1976	4,125	500	12.1	750	600	1,325
1977	4,500	500	11.1	650	600	1,375
1978	3,900	475	12.2	1,375	550	600
1979	3,850	575	14.9	675	400	1,400

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Delta						
1970	13,475	1,150	8.5	1,675	3,400	4,700
1972	14,225	1,450	10.2	1,725	2,925	5,425
1973	13,800	1,100	8.0	1,775	3,100	5,325
1974	14,175	1,150	8.1	1,800	3,250	5,575
1975	15,425	1,900	12.3	1,900	3,000	5,625
1976	15,900	1,575	9.9	1,925	3,550	5,425
1977	16,650	1,800	10.8	2,200	3,475	5,325
1978	15,950	1,625	10.2	2,200	3,350	5,700
1979	16,600	1,825	11.0	2,175	3,450	5,775
Dickinson						
1970	8,900	575	6.5	1,650	1,425	4,125
1971	9,175	575	6.3	1,650	1,425	4,325
1972	9,525	575	6.0	1,750	1,625	4,300
1973	9,825	575	5.9	1,825	1,700	4,550
1974	10,075	500	6.0	1,850	1,900	4,575
1975	10,075	1,000	9.9	1,900	1,900	4,575
1976	10,275	925	9.0	1,925	1,950	4,800
1977	11,400	875	7.7	2,000	2,125	5,050
1978	12,000	875	7.3	1,975	2,325	5,375
1979	12,100	825	6.8	2,100	2,275	5,450
Eaton - see Clinton, Eaton, Ingham, Ionia						
Emmet						
1970	7,700	825	10.7	950	1,000	3,675
1971	8,250	875	10.6	950	1,075	3,975
1972	8,875	800	9.0	1,050	1,000	3,675
1973	9,425	800	8.5	1,075	1,250	4,875
1974	10,275	1,025	10.0	1,125	1,350	5,225
1975	11,000	1,650	15.0	1,250	1,075	5,275
1976	11,675	1,300	11.1	1,375	1,075	5,625
1977	13,275	1,275	9.6	1,350	1,125	5,975
1978	13,350	1,150	8.6	1,250	1,300	6,300
1979	13,550	1,275	9.4	1,250	1,325	6,300
Genesee, Shiawassee						
1970	197,300	16,400	8.3	22,600	71,900	69,300
1971	193,700	14,700	7.6	22,300	79,100	69,200
1972	196,100	14,700	7.5	23,900	78,100	71,500
1973	201,100	12,400	6.2	24,500	84,600	74,000
1974	202,400	23,000	11.4	24,700	72,600	72,800
1975	209,800	32,300	15.4	26,900	68,200	71,800
1976	208,800	20,400	9.8	28,100	76,900	76,600
1977	217,200	18,700	8.6	28,000	83,100	80,800
1978	215,800	17,000	7.9	25,500	85,600	86,400
1979	224,100	19,600	8.7	27,600	84,800	89,400
Gladwin - see Midland, Gladwin						
Gogebic						
1970	7,450	500	6.7	1,300	1,075	2,175
1971	7,575	625	8.3	1,325	1,025	2,225
1972	7,700	575	7.5	1,350	1,050	2,225
1973	7,775	475	6.1	1,350	1,200	2,300
1974	8,125	500	6.2	1,375	1,200	2,475

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Gogebic (cont.)						
1975	7,975	725	9.1	1,500	1,050	2,525
1976	8,475	1,075	12.7	1,500	1,200	2,325
1977	8,525	1,025	12.0	1,525	975	2,500
1978	8,050	800	9.9	1,525	950	2,725
1979	8,800	650	7.4	1,500	950	3,250
Grand Traverse, Kalkaska, Leelanau						
1970	22,400	1,850	8.3	3,500	3,375	9,100
1971	23,900	2,250	9.4	3,700	3,300	9,700
1972	23,500	2,000	8.5	4,025	2,975	10,600
1973	24,835	1,825	7.4	4,200	3,350	11,900
1974	28,775	2,300	8.0	4,500	3,650	12,700
1975	31,450	3,975	12.6	4,775	3,625	13,025
1976	32,150	3,800	11.8	4,675	3,750	14,600
1977	34,800	3,450	9.9	4,975	3,925	16,300
1978	39,525	2,925	7.4	5,350	4,475	18,650
1979	41,475	2,675	6.4	5,375	4,750	19,425
Gratiot						
1970	16,500	1,975	12.0	1,525	3,300	5,575
1971	16,275	2,375	14.6	1,525	3,150	5,450
1972	16,525	1,800	10.9	1,650	3,500	5,700
1973	16,650	1,525	9.8	1,600	3,725	5,850
1974	16,825	2,423	14.4	1,650	3,350	5,750
1975	17,375	3,725	21.4	1,775	2,650	5,600
1976	17,650	3,125	17.7	1,775	3,225	6,000
1977	18,950	2,775	14.6	1,750	3,225	6,175
1978	17,300	2,200	12.7	1,725	3,175	6,175
1979	16,575	1,675	10.1	1,900	2,800	6,400
Hillsdale						
1970	15,650	1,025	6.5	1,800	3,525	3,050
1971	15,900	1,175	7.4	1,825	3,450	3,125
1972	17,350	1,050	6.1	1,925	4,075	3,300
1973	18,400	800	4.3	1,950	4,875	3,475
1974	18,775	1,250	6.7	2,025	4,750	3,575
1975	19,125	3,250	17.0	2,100	3,575	3,675
1976	19,675	1,850	9.4	2,275	4,200	4,475
1977	20,575	1,600	7.8	2,375	4,225	4,275
1978	20,450	1,100	5.4	2,250	4,725	4,500
1979	21,075	1,600	7.6	2,250	4,600	4,725
Houghton, Keewenaw						
1970	12,025	1,350	11.2	2,925	900	3,925
1971	12,550	1,600	12.7	2,975	850	4,100
1972	12,225	1,375	11.2	3,125	850	3,975
1973	12,350	1,300	10.5	3,200	875	4,100
1974	12,725	1,175	9.2	3,350	900	4,325
1975	13,550	1,700	12.5	3,575	775	4,675
1976	14,325	1,950	13.6	3,525	825	4,800
1977	13,725	1,900	13.8	3,950	825	5,000
1978	15,625	1,750	11.2	4,200	825	5,950
1979	15,325	1,525	10.0	4,400	775	5,225

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIRES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN M.CHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Huron						
1970	13,525	1,700	12.6	1,725	2,225	3,825
1971	13,700	1,650	12.0	1,750	2,200	3,900
1972	14,375	1,950	13.6	1,725	2,600	3,925
1973	14,250	1,275	8.9	1,750	3,425	3,650
1974	13,975	1,825	13.1	1,650	3,025	3,550
1975	14,975	3,000	20.0	1,750	2,225	3,675
1976	14,975	2,000	13.4	1,675	2,250	4,125
1977	13,700	1,875	13.7	1,650	1,850	4,325
1978	13,925	1,550	11.1	1,675	2,800	4,350
1979	13,900	1,300	9.4	1,825	2,825	4,625
Ingham - see Clinton, Eaton, Ingham, Ionia						
Ionia - see Clinton, Eaton, Ingham, Ionia						
Iosco - see Alcona, Iosco						
Iron						
1970	5,000	675	13.5	900	350	1,450
1971	4,950	575	11.6	925	325	1,500
1973	5,025	550	10.0	950	275	1,625
1974	5,400	500	9.3	975	525	1,600
1975	6,125	775	12.7	1,050	575	1,625
1976	6,125	800	13.1	1,050	575	1,700
1977	6,050	650	10.7	1,075	575	1,725
1978	6,025	575	9.5	975	675	1,800
1979	6,025	550	9.1	950	600	1,750
Isabella						
1970	16,975	950	5.6	4,900	800	4,600
1971	17,400	1,175	6.8	5,150	700	4,625
1972	17,875	1,200	6.7	5,100	750	4,925
1973	18,950	1,300	6.9	5,475	925	5,175
1974	20,400	1,650	8.1	5,650	1,000	5,600
1975	21,250	2,125	10.0	6,100	825	5,625
1976	22,050	1,725	7.8	6,350	1,050	6,775
1977	24,275	1,750	7.2	6,575	1,150	6,950
1978	25,725	1,475	5.7	6,475	1,275	7,450
1979	26,875	1,725	6.4	6,750	1,275	7,775
Jackson						
1970	58,300	3,500	6.0	7,600	17,900	21,200
1971	58,200	4,200	7.2	7,700	16,300	21,700
1972	61,500	3,300	5.4	7,900	17,700	24,100
1973	64,000	2,800	4.4	8,300	19,300	25,400
1974	65,800	3,800	5.8	8,100	18,300	25,700
1975	65,900	7,800	11.8	8,100	16,100	25,200
1976	64,900	6,500	10.0	8,600	14,700	26,700
1977	65,300	5,500	8.4	8,600	15,600	27,800
1978	65,700	3,800	5.8	8,400	16,400	29,000
1979	68,500	4,900	7.2	8,700	16,800	29,500
Kalamazoo, Van Buren						
1970	107,800	5,900	5.5	17,400	34,300	35,300
1971	107,700	7,100	6.6	17,500	32,100	36,200
1972	110,400	6,300	5.7	17,500	33,600	38,200

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Others[e]
Kalamazoo, Van Buren (cont.)						
1973	114,400	5,600	4.9	17,700	35,700	41,000
1974	171,500	6,900	5.9	19,000	35,200	43,200
1975	120,600	12,400	10.3	19,700	31,800	45,100
1976	124,800	9,500	7.6	19,900	32,700	46,900
1977	129,700	8,400	6.5	19,900	33,800	49,600
1978	128,300	7,400	5.8	19,400	34,600	52,900
1979	133,500	7,600	5.7	20,100	35,900	54,300
Kalkaska - see Grand Traverse, Kalkaska, Leelanau						
Kent, Ottawa						
1970	228,600	14,900	6.5	20,000	72,500	99,300
1971	231,600	17,100	7.4	20,400	70,700	100,800
1972	241,200	15,200	6.3	21,700	76,400	105,800
1973	252,400	13,700	5.4	24,000	83,100	112,900
1974	257,300	16,500	6.4	26,500	79,800	116,200
1975	259,900	29,400	11.3	28,300	70,300	117,200
1976	262,000	20,700	7.9	29,000	77,100	121,800
1977	281,400	17,600	6.3	30,300	83,800	126,600
1978	294,600	14,600	5.0	30,100	90,500	138,800
1979	308,900	16,600	5.4	31,400	95,500	144,000
Keweenaw - see Houghton, Keweenaw						
Lake						
1970	2,075	150	7.2	350	75	250
1971	2,375	175	7.4	350	100	300
1972	2,350	175	7.4	350	100	325
1973	2,625	175	6.7	375	125	350
1974	2,525	200	7.9	400	75	375
1975	2,700	400	14.8	425	50	400
1976	2,600	250	9.6	425	75	450
1977	2,725	250	9.2	450	75	450
1978	2,500	200	8.0	400	75	450
1979	2,775	325	11.7	400	50	525
Lapeer - see Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne						
Leelanau - see Grand Traverse, Kalkaska, Leelanau						
Lenawee						
1970	34,750	2,425	7.0	3,625	13,300	8,300
1971	35,600	3,275	9.2	3,675	12,725	8,675
1972	36,475	2,875	7.9	3,875	13,425	9,125
1973	36,950	2,300	6.2	3,875	14,525	9,450
1974	37,875	3,700	9.8	4,025	13,050	10,050
1975	38,525	6,600	17.1	4,050	10,325	9,700
1976	38,175	4,050	10.6	4,225	11,425	10,525
1977	37,225	3,650	9.8	4,275	12,025	11,150
1978	37,600	2,450	6.5	4,325	12,450	11,650
1979	40,000	3,125	7.8	4,450	12,850	12,300
Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
1970	1,804.0	115.5	6.4	223.1	567.8	759.2
1971	1,799.4	134.6	7.5	226.6	547.4	756.7
1972	1,337.9	126.5	6.9	229.8	562.0	788.4
1973	1,879.9	102.3	5.4	230.3	610.0	822.6
1974	1,909.7	129.1	6.8	243.5	581.6	834.0

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne[f] (cont.)						
1975	1,883.2	219.6	11.7	250.8	505.5	811.0
1976	1,936.9	172.3	8.9	250.7	544.0	844.6
1977	1,970.8	155.2	7.9	257.0	583.8	891.3
1978	2,013.1	132.3	6.6	255.6	608.9	935.7
1979	2,048.0	160.7	7.8	259.6	577.4	947.9
Luce						
1970	2,500	275	11.0	1,150	250	475
1971	2,925	600	20.5	1,225	250	475
1972	2,750	425	15.5	1,200	250	500
1973	2,750	425	15.5	1,200	200	575
1974	2,850	450	15.8	1,175	275	600
1975	3,150	725	23.0	1,150	200	625
1976	3,300	775	23.5	1,225	225	625
1977	3,475	825	23.7	1,850	200	700
1978	3,275	725	22.1	1,250	175	650
1979	3,000	350	11.7	1,350	175	650
Mackinac						
1970	4,550	750	16.5	500	75	1,325
1971	5,100	750	14.7	675	100	1,325
1972	5,500	600	10.9	825	100	1,450
1973	5,675	525	9.3	825	150	1,550
1974	5,975	525	8.8	875	200	1,650
1975	5,625	700	12.4	925	150	1,675
1976	5,925	625	10.5	900	200	1,625
1977	6,250	800	12.8	950	175	1,800
1978	6,450	750	11.6	900	125	2,000
1979	6,350	1,100	17.3	900	175	1,650
Macomb - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Manistee						
1970	8,100	900	11.1	900	2,450	2,150
1971	8,300	900	10.8	925	2,450	2,150
1972	8,400	1,125	13.4	975	2,350	2,175
1973	8,575	1,125	13.1	1,000	2,450	2,225
1974	8,600	1,175	13.7	1,100	2,500	2,100
1975	9,525	1,875	19.7	1,200	2,550	2,200
1976	9,250	1,450	15.7	1,200	2,600	2,450
1977	9,525	1,250	13.1	1,225	2,750	2,625
1978	9,875	1,100	11.1	1,225	2,900	2,700
1979	10,025	925	9.2	1,300	2,825	2,800
Marquette						
1975	27,350	2,300	8.4	6,925	1,200	14,525
1976	32,950	2,750	8.3	11,825	1,900	17,175
1977	32,225	2,775	8.6	7,825	925	16,550
1978	34,300	2,500	7.3	8,000	1,375	19,750
1979	33,550	2,875	8.6	8,200	1,050	18,750
Marquette, Alger						
1970	24,700	1,775	7.2	7,500	2,100	11,400
1971	25,050	2,150	8.6	8,050	1,925	11,150
1972	25,275	2,075	8.2	8,200	1,925	11,400
1973	26,700	1,825	6.8	7,900	1,975	13,200
1974	29,325	2,125	7.2	7,750	1,975	15,125

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Marquette, Alger (cont.)						
1975	30,800	2,850	9.3	7,475	1,900	15,350
1976	36,700	3,275	8.9	12,400	2,650	18,075
1977	36,025	3,300	9.2	8,400	1,825	17,400
1978	37,700	2,925	7.8	8,550	2,225	20,575
1979	37,050	3,325	9.0	8,725	1,975	19,525
Mason						
1970	9,275	575	6.2	1,025	2,300	2,925
1971	9,825	850	8.7	1,075	2,175	3,175
1972	10,150	825	8.1	1,100	2,125	3,500
1973	10,575	875	8.3	1,175	2,400	3,500
1974	10,850	800	7.4	1,300	2,675	3,300
1975	11,225	1,450	12.9	1,375	2,350	3,375
1976	11,375	1,125	9.9	1,450	2,400	3,500
1977	12,375	1,150	9.3	1,500	2,475	3,800
1978	12,200	925	7.6	1,475	2,650	3,925
1979	12,575	1,350	10.7	1,475	2,550	4,075
Mecosta						
1970	10,550	800	7.6	3,250	2,000	1,800
1971	10,800	1,050	9.7	3,450	1,650	1,900
1972	10,900	800	7.3	3,500	1,700	1,975
1973	10,800	875	8.1	3,600	1,550	2,025
1974	11,500	750	6.5	3,900	1,600	2,275
1975	12,425	1,375	11.1	3,950	1,575	2,300
1976	13,050	1,200	9.2	4,075	1,600	2,825
1977	13,250	1,150	8.7	4,325	1,675	2,925
1978	14,150	950	6.7	4,200	1,700	3,225
1979	14,275	1,050	7.4	4,325	1,650	3,250
Menominee						
1970	9,200	500	5.4	1,025	2,675	2,100
1971	9,100	600	6.6	1,025	2,525	2,075
1972	9,400	525	5.6	1,050	2,725	2,150
1973	9,625	500	5.2	1,100	2,850	2,225
1974	9,900	475	4.8	1,125	3,025	2,225
1975	10,225	900	8.8	1,350	2,675	2,225
1976	10,525	725	6.9	1,400	2,875	2,425
1977	10,500	725	6.9	1,425	2,925	2,475
1978	10,750	775	7.2	1,475	2,975	2,850
1979	11,025	775	7.0	1,525	2,875	3,025
Midland, Gladwin						
1970	28,600	1,250	4.4	3,600	14,325	9,500
1971	27,700	1,775	6.4	3,600	13,225	9,100
1972	27,775	1,875	6.8	3,675	13,075	9,325
1973	27,150	1,800	6.6	3,650	13,275	9,075
1974	28,600	3,150	11.0	3,525	11,400	9,850
1975	29,925	4,150	13.9	3,750	13,525	10,400
1976	31,275	3,575	11.4	3,900	13,925	12,100
1977	35,675	3,200	9.0	4,100	13,600	14,550
1978	37,000	2,925	7.9	3,875	13,400	15,550
1979	38,275	2,875	7.5	4,200	13,400	16,350

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Missaukee, Osceola, Wexford						
1970	17,100	1,650	9.6	2,225	4,375	4,200
1971	17,375	1,875	10.8	2,350	3,650	4,750
1972	18,075	1,850	10.2	2,600	4,000	4,850
1973	19,625	1,775	9.0	2,650	5,175	5,000
1974	20,675	2,275	11.0	2,725	5,675	4,925
1975	20,325	3,500	17.2	2,825	4,650	4,650
1976	20,625	3,200	15.5	4,150	7,100	6,425
1977	21,700	2,975	13.7	3,025	4,900	5,625
1978	20,900	2,300	11.0	3,300	5,300	5,575
1979	21,200	2,150	10.1	3,025	5,650	5,975
Missaukee, Wexford						
1975	12,900	2,775	21.5	1,725	2,475	3,650
1976	13,100	2,375	18.1	2,975	5,050	5,350
1977	14,375	2,175	15.1	1,825	3,050	4,475
1978	13,750	1,725	12.5	2,125	3,425	4,700
1979	14,000	1,475	10.5	1,850	3,675	4,800
Monroe[g]						
1970	46,350	2,650	5.7			
1971	46,075	2,800	6.1			
1972	47,000	2,250	4.8			
1973	48,350	2,100	4.3			
1974	49,300	2,800	5.7			
1975	49,175	4,625	9.4			
1976	50,300	3,575	7.1			
1977	51,350	3,525	6.9			
1978	51,400	3,200	6.2			
1979	63,275	5,950	9.4			
Montcalm						
1970	15,650	1,025	6.5	1,825	5,850	3,700
1971	16,300	1,375	8.4	1,850	5,800	3,975
1972	15,075	1,400	9.3	2,025	4,775	4,325
1973	15,650	1,175	7.5	2,075	5,025	4,475
1974	17,200	1,350	7.8	2,000	5,575	4,525
1975	18,825	3,400	18.1	2,225	4,375	4,625
1976	19,300	3,450	17.9	2,275	4,800	5,025
1977	19,350	3,075	15.9	2,325	4,500	5,350
1978	18,975	2,625	13.8	2,250	5,025	5,550
1979	18,500	1,850	10.0	2,325	5,050	5,675
Montmorency						
1970	1,725	150	8.7	325	325	325
1971	2,025	250	12.2	300	375	225
1972	2,350	325	13.8	350	475	400
1973	2,675	400	15.0	350	600	450
1974	2,850	500	17.5	350	600	450
1975	2,725	550	20.2	375	475	475
1976	2,725	300	11.0	375	600	525
1977	2,875	[illegible]	9.6	375	675	600
1978	3,100	2,825	8.9	400	625	700
1979	3,100	2,650	14.5	325	425	675

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Muskegon, Oceana						
1970	69,700	5,900	8.5	7,800	25,100	22,000
1971	69,100	6,600	9.6	8,200	21,900	22,200
1972	69,900	6,300	9.0	8,200	22,800	23,200
1973	69,600	5,200	7.5	8,400	23,300	24,100
1974	71,800	5,600	7.8	9,100	23,900	24,800
1975	73,000	10,800	14.8	10,100	21,200	24,600
1976	75,300	7,500	10.0	10,300	21,800	25,900
1977	75,900	6,900	9.1	10,500	22,100	26,600
1978	74,200	6,300	8.5	9,900	22,000	28,200
1979	76,500	6,700	8.8	10,200	22,300	29,100
Newaygo						
1970	10,550	800	7.6	1,425	1,700	1,925
1971	11,050	775	8.1	1,500	1,750	1,975
1972	11,025	975	8.8	1,475	1,700	2,025
1973	11,275	825	7.3	1,475	1,800	2,200
1974	11,500	925	8.0	1,525	1,800	2,250
1975	12,225	1,800	14.7	1,625	1,775	2,350
1976	12,475	1,475	11.8	1,700	1,875	2,500
1977	13,050	1,500	11.5	1,725	1,800	2,525
1978	12,825	1,325	10.3	1,625	1,950	2,675
1979	12,575	1,350	10.7	1,750	1,900	2,600
Oakland - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Oceana - see Muskegon, Oceana						
Ogemaw						
1970	4,500	700	15.6	575	450	1,075
1971	5,200	1,075	20.7	600	500	1,175
1972	5,000	600	12.0	650	550	1,275
1973	5,500	400	7.3	675	775	1,475
1974	5,600	575	10.3	700	800	1,500
1975	5,850	1,050	17.9	750	675	1,425
1976	6,175	750	12.1	775	825	1,725
1977	7,300	850	11.6	725	825	1,775
1978	7,575	850	11.2	800	950	1,975
1979	7,625	800	10.5	725	975	2,050
Ontonagon						
1970	3,850	250	6.5	750	450	3,100
1971	4,050	300	7.4	750	425	2,950
1972	3,950	300	8.9	750	475	3,275
1973	4,100	275	6.7	750	450	3,500
1974	4,200	275	6.5	750	475	3,400
1975	4,200	425	10.1	775	500	3,425
1976	3,725	825	22.1	750	375	2,275
1977	3,475	675	19.4	750	425	2,050
1978	3,200	550	17.2	825	425	2,050
1979	3,125	400	12.8	850	475	2,025
Osceola - see Missaukee, Osceola, Wexford for 1970-1974						
Osceola						
1975	7,425	725	9.8	1,100	2,175	1,000
1976	7,525	825	11.0	1,175	2,050	1,075
1977	7,325	800	10.9	1,200	1,850	1,150
1978	7,150	575	8.0	1,175	1,875	875
1979	7,200	675	9.4	1,175	1,975	1,175

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Oscoda						
1970	1,575	125	7.9	275	150	350
1971	1,675	150	9.0	275	150	400
1972	1,825	225	12.3	300	175	375
1973	1,850	250	13.5	325	175	350
1974	2,025	350	17.3	325	225	300
1975	2,275	575	25.3	300	200	350
1976	2,400	425	17.7	350	325	425
1977	2,725	425	15.6	325	325	400
1978	2,350	375	16.0	325	275	400
1979	2,175	350	16.1	325	225	475
Otsego						
1970	4,125	350	8.5	825	850	1,425
1971	4,525	400	8.8	875	775	1,675
1972	4,925	375	7.6	900	775	1,850
1973	5,000	400	8.0	925	925	2,025
1974	5,350	550	10.3	950	925	2,050
1975	5,475	800	14.6	950	675	2,125
1976	5,725	650	11.4	1,000	850	2,450
1977	6,950	625	9.0	1,050	925	2,675
1978	8,225	600	7.3	1,050	1,000	3,450
1979	9,100	625	6.9	1,000	1,175	3,525
Ottawa - see Kent, Ottawa						
Presque Isle						
1970	4,100	275	6.7	650	150	1,900
1971	4,300	225	5.2	625	150	2,125
1972	4,325	300	6.9	725	150	2,025
1973	4,300	350	8.1	750	150	1,950
1974	4,250	325	7.6	750	150	1,950
1975	4,325	525	12.1	825	150	1,850
1976	4,300	450	10.5	850	200	1,950
1977	4,550	475	10.4	825	225	2,025
1978	4,500	500	11.1	850	175	2,150
1979	4,300	625	14.5	925	175	2,050
Roscommon						
1970	3,625	125	3.4	750	375	1,400
1971	3,750	225	6.0	750	375	1,375
1972	4,000	375	9.4	775	375	1,450
1973	4,125	375	9.1	850	400	1,500
1974	4,225	425	10.1	875	450	1,500
1975	4,350	650	14.9	950	425	1,550
1976	4,850	775	16.0	975	550	1,675
1977	5,575	675	12.1	1,000	475	1,850
1978	5,450	625	11.5	1,150	475	1,775
1979	5,950	700	11.8	1,250	475	1,975
Saginaw						
1970	83,600	4,400	5.3	9,000	29,100	32,700
1971	88,400	5,300	6.0	9,100	32,900	34,500
1972	89,900	4,800	5.4	9,300	33,100	36,000
1973	91,000	4,500	4.9	9,500	35,000	37,000
1974	91,600	6,300	6.9	10,200	32,600	37,700

TABLE V-15. CIVILIAN LABOR FORCE UNEMPLOYMENT,, AND UNEMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Saginaw (cont.)						
1975	91,500	10,500	11.5	11,000	29,000	37,000
1976	97,400	8,600	8.8	11,200	32,300	38,800
1977	99,700	6,800	6.8	11,100	34,400	40,500
1978	99,300	5,600	5.6	11,100	36,600	42,400
1979	103,300	7,800	7.6	11,800	36,000	42,900
St. Clair - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
St. Joseph						
1970	20,325	1,000	4.9	2,625	8,950	4,250
1971	20,950	1,150	5.5	2,650	8,925	4,575
1972	20,925	1,100	5.3	2,675	8,975	4,675
1973	21,650	1,075	5.0	2,675	9,375	5,025
1974	23,100	1,950	8.4	2,650	9,425	5,400
1975	22,125	3,300	14.9	2,875	8,025	5,075
1976	21,925	2,050	9.4	2,950	8,550	5,475
1977	22,875	1,850	8.1	3,025	9,100	6,000
1978	24,125	1,725	7.2	2,925	9,875	6,450
1979	24,975	2,625	10.5	3,175	8,900	7,025
Sanilac						
1970	14,200	1,275	9.0	1,625	3,475	1,975
1971	15,300	1,975	12.9	1,550	3,600	2,075
1972	16,025	2,075	12.9	1,575	3,775	2,300
1973	17,000	1,875	11.0	1,800	4,200	2,600
1974	15,700	1,625	10.4	1,775	3,500	2,825
1975	15,350	2,025	13.2	1,900	2,900	2,775
1976	15,600	1,350	8.7	1,925	2,925	2,900
1977	16,300	1,400	8.6	1,900	3,525	3,075
1978	15,525	1,350	8.7	1,850	3,625	3,225
1979	15,700	1,850	11.8	1,925	3,375	3,325
Schoolcraft						
1970	3,025	325	11.6	600	325	1,150
1971	3,075	350	11.4	625	325	1,150
1972	3,025	375	12.4	600	325	1,125
1973	2,925	300	10.3	550	350	1,175
1974	2,925	325	11.1	550	350	1,150
1975	3,200	500	15.6	550	300	1,200
1976	3,325	425	12.8	550	325	1,275
1977	3,450	450	13.0	575	375	1,300
1978	3,725	475	12.8	675	350	1,350
1979	3,775	550	14.6	750	325	1,300
Shiawassee - see Genesee, Shiawassee						
Tuscola						
1970	18,525	1,475	8.0	3,475	2,450	3,200
1971	17,650	1,500	8.5	3,400	2,025	3,200
1972	18,625	1,650	8.9	3,450	2,325	3,350
1973	19,575	1,200	6.1	3,425	2,700	3,650
1974	21,025	2,075	9.9	3,350	2,600	4,075
1975	22,350	3,875	17.3	3,450	2,000	4,175
1976	22,525	2,500	11.1	3,550	2,525	4,675
1977	23,025	2,250	9.8	3,525	2,875	4,975
1978	24,650	1,975	8.0	3,525	2,950	5,400
1979	26,150	2,250	8.6	3,775	3,125	5,625

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Van Buren - see Kalamazoo, Van Buren						
Washtenaw						
1970	104,800	5,600	5.3	38,700	33,000	31,000
1971	106,400	7,000	6.6	37,500	35,400	31,000
1972	107,600	5,300	4.9	37,500	36,500	32,900
1973	115,400	5,200	4.5	38,500	39,300	38,300
1974	117,000	7,600	6.5	39,600	35,600	41,100
1975	119,200	14,900	12.5	40,300	31,800	39,400
1976	124,900	10,300	8.2	41,400	36,800	41,200
1977	131,300	8,500	6.5	41,700	40,800	44,300
1978	136,100	7,400	5.4	41,700	44,000	49,000
1979	142,700	8,400	5.9	43,200	45,600	51,000
Wayne - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Wexford - see Missaukee, Osceola, Wexford						
Upper Peninsula						
1970	107,500	9,900	9.2	23,500	13,500	43,600
1971	112,100	11,500	10.3	24,100	12,900	42,500
1972	112,100	10,800	9.6	24,900	13,600	44,300
1973	114,000	9,800	8.6	24,600	14,600	47,800
1974	119,500	10,200	8.5	26,100	15,500	49,900
1975	124,600	15,000	12.0	28,200	14,300	50,900
1976	133,500	15,900	11.9	28,400	15,000	49,100
1977	135,000	15,700	11.6	29,700	15,200	50,400
1978	138,300	14,500	10.5	28,800	15,400	56,300
1979	138,000	14,300	10.4	29,700	14,800	53,600
Michigan[h]						
1970	3,596	241	6.7	506.5	1,080.1	1,416.8
1971	3,621	277	7.6	509.4	1,057.7	1,428.4
1972	3,705	260	7.0	526.6	1,094.4	1,493.9
1973	3,808	221	5.9	534.3	1,177.2	1,570.8
1974	3,883	288	7.4	562.5	1,114.0	1,601.7
1975	3,901	487	12.5	583.1	983.7	1,569.3
1976	4,000	374	9.4	593.7	1,058.9	1,578.6
1977	4,124	337	8.2	596.7	1,120.2	1,717.8
1978	4,199	289	6.9	611.4	1,179.6	1,818.4
1979	4,313	335	7.8	623.0	1,151.2	1,853.7

SOURCE: Michigan Employment Security Commission, special release.

TABLE V-15. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1970-1979 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]

a. Labor force includes persons involved in labor disputes. Employment and unemployment figures are on the basis of place of residence; wage and salary figures by place of work.

b. By place of work as opposed to place of residence.

c. Unemployment as a percentage of civilian labor force. Civilian labor force data are developed on the basis of questions asked at a sample of households, whereas the number of nonfarm wage and salary jobs is estimated by querying selected employers. The difference between the two stems largely from nonfarm self-employment (lawyers, dentists, physicians, and other professionals in private practice; domestic workers; "mom and pop" grocery stores, restaurants, and motels; and so forth), agricultural employment (both owners and their employees), workers involved in labor disputes who otherwise would be employed, multiple jobholding on the part of some employed persons, and sampling differences. Also, a worker might be employed in a factory or office in one state, and counted there in the employer survey, but live in another state, and be counted there in the household survey.

d. Federal, state and local. Includes public school employees and faculty and others employed full and part time at publicly owned universities.

e. Construction, transportation, communication, public utilities, wholesale trade, retail trade, finance, insurance, real estate, services, and mining.

f. Totals in thousands.

g. Monroe is part of the Toledo, Ohio, labor market area. Separate data for place of work are not compiled. Data for 1979 are not comparable with those for previous years due to a revised methodology for estimating.

h. All 83 counties, including Monroe, totals are in thousands.

TABLE V-16. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, BY INDUSTRY: 1967-1979

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	1967	1968	1969	1970
Manufacturing industries	1,138.5	1,162.0	1,193.1	1,080.1
Durable goods industries	920.1	940.8	968.1	861.6
Lumber and wood products	11.7	11.2	11.9	13.8
Furniture and fixtures	23.2	23.0	24.0	20.8
Metal industries	235.1	242.3	248.3	230.5
Primary metal products	100.6	101.4	106.5	90.0
Fabricated metal products	134.5	140.9	141.7	140.5
Machinery (nonelectrical)	180.9	171.9	180.1	162.9
Electrical machinery	46.2	48.6	45.5	42.3
Transportation equipment	375.9	396.8	412.4	349.5
Motor vehicles and equipment	361.8	382.8	398.7	335.3
Other	14.1	14.0	13.6	14.2
Other durable goods	47.1	47.0	46.0	41.8
Nondurable goods industries	218.5	221.2	224.9	218.5
Food and kindred products	56.0	55.1	54.5	54.6
Textile mill products and apparel	23.0	26.2	26.5	22.8
Paper and allied products	29.3	28.5	28.5	28.9
Printing, publishing, and allied industries	31.6	31.9	34.7	34.6
Chemicals and petroleum refining and related industries	50.1	49.1	49.0	44.4
Other nondurable goods	28.4	30.4	31.8	33.2
Private nonmanufacturing industries[a]	1,311.0	1,330.7	1,398.3	1,416.8
Contract construction	120.0	107.7	128.6	119.2
Transportation, communication, and public utilities	143.5	145.6	149.7	149.1
Wholesale trade	133.1	135.8	137.2	144.7
Retail trade	419.7	433.8	455.8	457.0
Finance, real estate, and insurance	105.0	109.6	115.5	119.6
Selected services	376.8	385.5	399.5	415.4
Mining	12.8	12.6	12.0	11.8
Government	454.3	470.6	493.7	506.6
Federal	56.5	57.9	56.2	57.7
State	97.8	102.4	109.6	115.9
Local	300.1	310.4	327.9	333.0
TOTAL	2,903.8	2,963.3	3,085.1	3,003.5

TABLE V-16. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, BY INDUSTRY: 1967-1979 (cont.)

(Averages of 12 monthly estimates, in thousands of jobs)

1971	1972	1973	1974	1975	1976	1977	1978	1979
1,057.7	1,094.4	1,177.2	1,114.0	983.7	1,058.9	1,120.2	1,179.6	1,151.2
845.5	876.8	952.1	897.2	778.2	844.9	897.8	952.8	928.3
14.0	15.1	16.0	15.5	12.8	14.0	14.4	14.4	14.1
19.6	20.8	22.6	21.9	18.6	19.9	20.0	21.5	22.9
226.7	233.4	252.0	235.5	199.9	223.3	237.3	247.2	237.6
87.2	87.7	95.5	93.9	79.5	85.7	91.6	91.6	87.7
139.5	145.7	156.5	141.6	120.4	137.6	145.7	155.6	149.9
137.8	140.3	155.8	158.1	136.6	137.4	150.6	159.8	166.3
40.3	42.3	47.0	45.4	38.2	39.4	40.9	42.7	41.5
367.2	383.5	415.4	377.6	332.8	370.7	392.1	423.7	403.2
353.6	369.5	401.1	366.1	321.2	357.9	378.5	409.6	389.8
13.6	14.0	14.3	11.5	11.6	12.8	13.6	14.1	13.4
39.9	41.4	43.3	43.2	39.3	40.2	42.5	43.5	42.7
212.2	217.6	225.1	216.8	205.5	214.0	222.4	226.8	222.9
53.4	52.3	51.8	51.8	51.5	51.0	51.9	52.4	52.3
23.9	24.6	27.0	24.7	22.2	25.9	27.3	27.7	25.6
26.7	26.5	26.9	26.3	23.5	24.1	24.3	23.7	23.8
34.2	36.7	36.8	35.5	34.5	32.7	32.3	33.6	34.2
44.5	44.2	45.2	44.3	45.9	47.4	49.6	48.7	47.4
29.5	33.3	37.4	34.2	27.9	32.9	37.0	40.7	39.6
1,428.4	1,493.9	1,570.8	1,601.7	1,569.3	1,578.6	1,717.8	1,818.4	1,853.7
121.3	128.6	132.7	127.6	106.3	107.0	122.8	138.8	139.8
146.9	146.7	152.4	151.9	143.5	141.3	150.2	155.9	158.8
144.7	145.9	150.6	153.5	146.8	130.5	151.8	164.2	172.1
459.1	477.7	503.0	510.9	509.6	510.8	557.1	584.9	585.2
120.9	127.4	130.2	134.2	134.0	132.3	142.2	147.4	153.2
424.4	455.5	489.0	510.2	515.3	544.6	581.6	613.9	621.1
11.1	12.1	12.9	13.4	13.8	12.1	12.1	13.3	13.4
509.4	526.6	534.3	562.5	583.1	593.7	596.7	611.4	623.0
54.8	55.2	55.0	56.2	56.1	55.5	54.7	54.6	56.0
117.8	122.4	123.9	127.5	132.6	134.3	136.8	143.6	150.3
336.8	349.0	355.4	378.8	394.4	403.9	405.2	413.2	416.7
2,995.5	3,114.9	3,282.3	3,278.2	3,136.1	3,231.2	3,434.7	3,609.4	3,627.9

SOURCE: Michigan Employment Security Commission, special release.
a. Excludes domestic workers and agricultural employment.

TABLE V-17. CIVILIAN WAGE AND SALARY EMPLOYMENT IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, LABOR MARKET AREA, BY INDUSTRY: 1979

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	Ann Arbor	Battle Creek	Bay City	Benton Harbor	Detroit
Manufacturing industries	45.6	23.5	10.6	25.0	577.4
Durable goods industries	40.9	14.4	8.3	19.4	487.4
Lumber and wood products	.1	.1	.2	.4	2.2
Furniture and fixtures	(D)	0	0	(D)	1.8
Metal industries	2.8	4.2	.9	6.4	125.5
Primary metal products	.4	1.7	(D)	4.5	44.9
Fabricated metal products	2.4	2.5	(D)	1.9	80.6
Machinery (nonelectrical)	2.1	8.4	(D)	4.3	93.9
Electrical machinery	(D)	(D)	1.8	4.8	7.8
Transportation equipment	24.1	.2	4.1	2.6	237.6
Motor vehicles and equipment	(D)	(D)	(D)	2.4	230.4
Other	(D)	(D)	(D)	.2	7.2
Other durable goods	11.8	1.5	1.3	.9	18.6
Nondurable goods industries	4.7	9.1	2.3	5.6	90.0
Food and kindred products	.5	6.7	.6	1.2	90.2
Textile mill products and apparel	(a)	(a)	(a)	(a)	16.8
Paper and allied products	.5	1.1	(a)	.9	4.3
Printing, publishing, and allied industries	2.1	.6	.2	1.6	16.1
Chemicals and petroleum refining and related industries	(a)	.3	(a)	.2	17.6
Other nondurable goods	1.6	.4	1.5	1.7	16.0
Private nonmanufacturing industries[a]	51.0	30.5	19.2	30.7	947.9
Contract construction	3.1	1.9	1.2	1.8	61.2
Transportation, communication, and public utilities	3.6	2.4	1.8	2.1	86.2
Wholesale trade	2.6	1.5	1.6	2.3	85.3
Retail trade	17.2	9.7	6.7	10.4	283.8
Finance, real estate, and insurance	3.5	3.6	1.2	2.2	88.9
Selected services	21.0	11.4	6.7	11.9	341.2
Mining	(b)	(b)	(b)	(b)	1.3
Government	43.2	12.4	5.2	8.6	259.6
Federal	2.3	3.8	.3	.4	34.1
State	30.1	.6	.4	.6	33.1
Local	10.8	8.0	4.5	7.6	192.4
TOTAL	139.8	66.4	35.0	64.3	1,784.9

TABLE V-17 CIVILIAN WAGE AND SALARY EMPLOYMENT IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, LABOR MARKET AREA, BY INDUSTRY: 1979 (cont.)

(Averages of 12 monthly estimates, in thousands of jobs)

Flint	Grand Rapids	Jackson	Kalamazoo	Lansing	Muskegon	Saginaw	Upper Peninsula
84.8	95.5	16.8	35.9	44.7	22.3	36.0	14.8
80.7	71.3	13.6	17.7	39.6	19.1	33.3	10.2
.1	1.4	(D)	.3	.5	.1	.3	3.3
(D)	13.5	(D)	(D)	.3	1.6	.2	.9
13.5	22.8	4.2	7.0	5.8	7.9	12.7	1.5
(D)	5.2	.8	1.7	(D)	6.3	(D)	1.1
(D)	17.6	3.4	5.3	(D)	1.6	(D)	.4
1.9	14.4	2.8	3.4	4.0	7.8	3.8	2.7
2.0	5.6	.9	.3	.1	(D)	(D)	(D)
62.2	4.9	4.7	3.8	27.7	.7	15.5	.6
(D)	3.1	(D)	2.9	(D)	(D)	(D)	(D)
(D)	1.8	(D)	.9	(D)	(D)	(D)	(D)
1.0	8.7	1.0	2.9	1.2	1.0	.8	1.2
4.1	24.2	3.2	18.2	5.1	3.2	2.7	4.6
1.1	6.4	.4	2.2	1.4	.8	1.5	.8
.3	3.3	.1	(a)	(a)	0	(a)	(a)
.5	1.6	(a)	5.7	(a)	(a)	(a)	2.4
1.1	3.8	.4	1.6	1.5	.3	.5	1.0
(a)	4.2	(a)	6.7	(a)	.7	.6	(a)
1.1	4.9	2.3	2.0	2.2	1.4	.1	.4
89.4	144.0	29.5	54.3	83.2	29.1	42.9	53.6
6.9	14.1	2.0	4.4	6.7	3.0	2.7	4.7
7.2	10.9	5.0	4.0	5.5	3.1	4.7	5.1
9.9	14.3	1.5	3.3	7.2	8.1	2.7	3.3
30.2	45.4	9.5	17.8	28.6	9.6	14.9	17.7
6.1	10.1	1.5	3.5	9.2	1.7	3.8	3.1
30.0	48.9	10.0	21.2	26.0	9.7	14.1	13.1
(b)	.3	(b)	.1	(b)	.2	(b)	6.6
27.6	31.4	8.7	20.1	66.7	10.2	11.8	29.7
1.5	2.0	.4	1.1	2.6	.4	1.2	2.9
2.2	3.1	1.9	7.2	41.6	1.3	1.3	9.2
23.9	26.3	6.4	11.8	22.5	8.5	9.3	17.6
201.8	270.9	55.0	110.3	194.6	61.6	90.7	98.1

SOURCE: Michigan Employment Security Commission, special release.
NOTE: Labor Market Areas are the same as Standard Metropolitan Statistical Areas, except for Benton Harbor (Berrien County), Port Huron (St. Clair County), and Upper Peninsula (15 counties) which are not SMSAs.
a. Excludes domestic workers and agricultural employment.
b. Includes mining.
(D): Withheld to avoid disclosing data for individual companies.

TABLE V-18. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1947-1979

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments	Cumulative benefit payments[a]	Balance in fund
1947	43,626.4	4,050.6	---	567,280.0	43,851.4	345,312.5	221,967.5
1948	70,233.6	4,941.3	---	642,454.9	35,927.8	381,240.3	261,214.6
1949	79,584.3	6,184.9	---	728,224.2	50,056.5	431,296.8	296,927.4
1950	68,839.0	6,363.7	---	803,426.9	82,853.5	514,150.3	289,276.5
1951	71,272.1	6,817.7	---	881,516.6	27,519.6	541,670.0	339,846.7
1952	77,834.3	7,667.0	---	967,018.0	62,955.8	604,625.7	362,392.2
1953	83,921.3	8,735.1	---	1,059,674.4	39,846.4	644,472.1	415,202.3
1954	81,546.8	10,313.8	---	1,151,535.0	96,097.9	740,570.1	410,965.0
1955	61,695.5	8,652.9	---	1,221,883.3	114,805.2	855,375.3	366,508.1
1956	61,471.7	8,231.1	---	1,291,586.2	105,559.3	960,934.6	330,651.6
1957	96,133.5	7,620.4	1,847.1[b]	1,397,187.2	134,977.2	1,095,911.8	301,275.5
1958	113,509.3	7,030.4	3,755.6[b]	1,521,482.5	269,470.4	1,365,382.2	156,100.3
1959	121,143.9	2,546.9	114,704.5[b]	1,759,877.8	193,522.4	1,558,904.6	200,973.2
1960	154,066.2	2,830.3	---	1,916,774.3	135,611.5	1,694,516.1	222,258.2
1961	149,374.3	2,820.1	---	2,068,968.7	224,542.4	1,919,058.5	149,910.2
1962	159,179.2	1,458.1	---	2,229,606.0	134,753.3	2,053,811.8	175,794.1
1963	164,334.9	3,034.0	---	2,396,974.9	100,079.4	2,153,891.2	243,083.7
1964	187,927.1	6,664.6	--	2,591,566.6	81,581.0	2,235,472.3	356,094.3
1965	181,154.7	11,304.2	8,131.5[c]	2,775,893.9	64,666.0	2,300,138.3	475,755.7
1966	178,441.2	15,941.7	26,100.0[c]	2,944,176.8	61,990.0	2,362,128.3	582,048.6
1967	161,241.0	20,120.3	28,800.0[c]	3,097,230.1	110,923.2	2,473,051.5	624,178.7
1968	127,967.4	22,199.5	84,860.6[c]	3,162,536.5	118,523.9	2,591,575.4	570,961.1
1969	125,969.1	25,026.4	---	3,313,532.0	109,506.0	2,701,081.3	612,450.7
1970	125,788.5	28,382.5	---	3,467,703.0	178,076.2	2,879,157.6	588,545.5

TABLE V-18. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1947-1979 (cont.)

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments	Cumulative benefit payments[a]	Balance in fund
1971	128,120.4	24,797.4	---	3,620,620.8	359,659.3[d]	3,238,816.9	381,804.0
1972	232,574.7	15,199.6	---	3,868,395.4	284,871.9[d]	3,523,688.8	344,706.6
1973	338,939.6	19,086.9	---	4,226,421.8	214,737.6[d]	3,738,426.4	487,995.4
1974	313,218.6	29,504.9	---	4,539,640.4	330,066.5[d]	4,068,492.9	500,652.4
1975	299,102.7	18,383.2	81,000.0[e]	4,938,126.3	813,219.0[d]	4,881,711.9	85,919.3
1976	368,355.1	15,426.0	490,000.0[e]	5,796,496.8	727,131.5[d]	5,608,843.4	217,158.3
1977	558,208.6	0	53,000.0[e]	6,357,432.1	523,723.5[d]	6,132,566.9	304,643.4
1978	680,179.3	248.8[f]	---	6,698,039.8	439,511.8[d]	6,672,933.5	598,833.0
1979	730,733.7	6,753.1	---	7,435,526.5	498,512.0[d]	7,221,718.8	837,807.7

SOURCE: Michigan Employment Security Commission, Annual Report, 1947 through 1979 (Lansing: annually), Appendix, p. 27 (1979 data).

a. 1 January 1937 - 30 June 1976.

b. Includes funds credited to the Michigan account in the Unemployment Trust Fund on 1 July of indicated year by the Secretary of the Treasury in accordance with the provisions of Title IX, Section 903 of the Social Security Act, as amended by Public Law 567, 83rd Cong., 2nd sess. (Reed bill) and $113 million advanced in September 1958 under provisions of Title XII, Section 1201, of the Social Security Act. Repayment of $15,381,202.36 was made through 30 June 1967 under automatic repayment provisions of the Federal Unemployment Tax Act.

c. Final repayments were made during 1968 by direct transfer from the fund of the outstanding balance on the 1958 loan of $113 million in the amount of $71,187,297.64 and on 1958-1959 TUC costs in the amount of $13,673,334.98. Installment repayments were also made annually by direct transfer from the fund on the loan balance in 1964, 1965, and 1966, and on TUC costs in 1965 and 1966.

d. Includes state share of extended benefits.

e. Advance from federal unemployment account.

f. Adjustment for prior years.

TABLE V-19. WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, NUMBER, WORKERS INVOLVED, AND MAN-DAYS IDLE: 1941-1978

	Michigan				United States			
			Man-days idle during year				Man-days idle during year	
Year	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]
1941	252	333.6	1,897.6	--	4,288	2,360.0	23,000.0	.32
1942	261	114.7	258.6	--	2,968	840.0	4,180.0	.05
1943	413	274.5	592.3	--	3,752	1,980.0	13,500.0	.15
1944	562	568.7	1,836.9	--	4,956	2,120.0	8,720.0	.09
1945	478	521.1	5,960.0	--	4,750	3,470.0	38,000.0	.47
1946	311	248.0	10,600.0	--	4,985	4,600.0	116,000.0	1.43
1947	188	180.0	2,550.0	--	3,693	2,170.0	34,600.0	.41
1948	196	262.0	2,450.0	--	3,419	1,960.0	34,100.0	.37
1949	139	240.0	2,120.0	--	3,606	3,030.0	50,500.0	.59
1950	322	345.0	7,360.0	--	4,843	2,410.0	38,800.0	.44
1951	315	215.0	1,600.0	--	4,737	2,220.0	22,900.0	.23
1952	326	311.0	3,500.0	--	5,117	3,540.0	59,100.0	.57
1953	331	297.0	2,450.0	--	5,091	2,400.0	28,300.0	.26
1954	204	171.0	1,060.0	--	3,468	1,530.0	22,600.0	.21
1955	327	292.0	1,740.0	--	4,320	2,650.0	28,200.0	.26
1956	210	98.8	1,190.0	--	3,825	1,900.0	33,100.0	.29
1957	208	138.0	1,280.0	.24	3,673	1,390.0	16,500.0	.14
1958	275	437.0	3,400.0	.72	3,694	2,060.0	23,900.0	.22
1959	172	83.5	2,680.0	.53	3,708	1,880.0	69,000.0	.61
1960	145	65.3	722.0	.14	3,333	1,320.0	19,100.0	.17
1961	180	239.0	1,820.0	.38	3,367	1,450.0	16,300.0	.14
1962	196	81.4	1,440.0	.28	3,614	1,230.0	18,600.0	.16
1963	135	36.8	611.0	.12	3,362	941.0	16,100.0	.13
1964	197	249.0	4,540.0	.83	3,655	1,64 .0	22,900.0	.18
1965	229	82.0	1,560.0	.27	3,963	1,550.0	23,300.0	.18
1966	275	143.0	1,820.0	.30	4,405	1,960.0	25,400.0	.19
1967	283	284.0	5,180.0	.81	4,595	2,870.0	42,100.0	.30
1968	354	261.1	7,752.7	1.22	5,045	2,649.0	49,018.0	.32
1969	305	90.2	1,614.5	.22	5,700	2,481.0	42,869.0	.28
1970	313	323.6	11,143.5	1.75	5,716	3,305.2	66,413.8	.37
1971	282	126.3	2,942.8	.46	5,138	3,279.6	47,589.1	.32
1972	167	54.2	851.3	.13	5,010	1,713.6	27,066.4	.17
1973	262	210.7	1,788.8	.22	5,353	2,250.7	27,948.4	.14
1974	346	121.7	3,130.8	.38	6,074	2,777.7	47,990.9	.24
1975	189	35.0	934.6	.12	5,031	1,745.6	31,237.0	.16
1976	260	209.0	3,151.3	.38	5,648	2,420.0	37,858.9	.19
1977	327	97.9	1,717.1	.20	5,506	2,040.1	35,821.8	.17
1978	300	93.7	1,756.9	.20	4,230	1,622.6	36,912.5	.17

SOURCES: Bureau of Labor Statistics, Work Stoppages, 1978 (Washington, D.C.: 1980), Summary 80-4, Tables 7 (1978 data), Analysis of Work Stoppages, 1974, Bulletin 1902 (Washington, D.C.: 1976), Table 21 (1974 data), Handbook of Labor Statistics 1975--Reference Edition, Bulletin 1865 (Washington, D.C.: 1975), Table 159 (1941-1973 U.S. data), and Table 164 (1956-1973 Michigan data), and various BLS bulletins commencing with 711 (1941) and ending with 1196 (1955: 1941-1955 Michigan data).

a. Percentage of estimated total working time. Data for individual states not published prior to 1957.

TABLE V-20. NUMBER OF WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, WORKERS INVOLVED, AND MAN-DAYS IDLE, BY INDUSTRY GROUP: 1977

(Workers and days idle in thousands)

Industry group	Michigan[a]			United States		
	Stoppages beginning in year		Man-days idle during year (all stoppages)	Stoppages beginning in year		Man-days idle during year (all stoppages)
	Number	Workers involved		Number	Workers involved	
All industries	327	97.9	1,717.1	5,506	2,040.1	35,821.8
Manufacturing	200	65.1	1,090.6	2,537	787.7	18,331.4
Ordnance and accessories	--	--	--	3	1.8	46.3
Food and kindred products	12	1.6	123.7	221	54.0	1,501.4
Tobacco manufactures	--	--	--	6	7.4	167.6
Textile mill products	1	(b)	.1	40	4.3	86.4
Apparel and other finished products made from fabrics and similar materials	1	.1	9.0	65	10.3	182.7
Lumber & wood products, except furniture	3	.1	1.8	78	19.5	340.7
Furniture and fixtures	4	.3	4.9	93	10.7	202.8
Paper and allied products	5	.9	12.0	82	24.1	507.8
Printing, publishing, & allied products	2	.2	2.0	57	9.7	241.2
Chemicals and allied products	7	.9	57.3	111	19.3	636.0
Petroleum refining & related industries	--	--	--	23	6.3	172.3
Rubber & miscellaneous plastics products	10	1.4	25.3	88	14.7	343.4
Leather and leather products	--	--	--	19	6.9	259.0
Stone, clay, and glass products	8	3.4	39.8	139	44.8	987.8
Primary metal industries	23	9.7	165.8	239	90.6	2,166.8
Fabricated metal products, except ordnance, machinery, and transportation equipment	39	5.7	178.8	354	57.2	1,466.0
Machinery, except electrical	45	17.9	337.5	451	139.6	3,266.9

TABLE V-20. NUMBER OF WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, WORKERS INVOLVED, AND MAN-DAYS IDLE, BY INDUSTRY GROUP: 1977 (cont.)

(Workers and days idle in thousands)

Industry group	Michigan[a]			United States		
	Stoppages beginning in year		Man-days idle during year (all stoppages)	Stoppages beginning in year		Man-days idle during year (all stoppages)
	Number	Workers involved		Number	Workers involved	
Electrical machinery, equipment, and supplies	14	1.3	19.7	199	76.2	1,076.3
Transportation equipment	18	19.8	110.7	189	172.0	4,175.5
Professional, scientific, & controlling instruments; photographic and optical goods; watches and clocks	5	.8	10.4	39	8.7	216.4
Miscellaneous manufacturing industries	3	.9	35.8	48	9.5	288.1
Nonmanufacturing	127	32.9	626.5	2,970	1,252.3	17,485.8
Agriculture, forestry, and fisheries	--	--	--	10	1.1	23.7
Mining	5	3.7	266.9	999	676.4	7,280.5
Contract construction	18	5.6	87.6	486	217.5	3,284.4
Transportation, communication, electric, gas, and sanitary services	10	.4	59.4	303	56.1	2,157.1
Wholesale and retail trade	25	2.3	53.1	486	86.3	1,988.0
Finance, insurance, and real estate	1	.2	4.1	23	2.8	96.6
Services	17	2.1	35.1	250	41.9	889.8
Government[c]	51	18.4	120.3	413	170.2	1,765.7

SOURCE: Bureau of Labor Statistics, Work Stoppages, 1976 (Washington, D.C.: 1977), Table 5, Work Stoppages Region V 1976, Table 2, and Work Stoppages Region V 1977, Table 23.

a. No work stoppages were recorded during 1974 for the industry groups for which no data are presented.
b. Fewer than 50.
c. The situations reported here have, for statistical purposes, been deemed to fall within the BLS definition of a work stoppage. This decision does not constitute a legal determination that a work stoppage has taken place in violation of any law or public policy.

TABLE V-21. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY INDUSTRY: 1978

Industry	Average employment[a]	Payrolls (000)	Average weekly earnings
Agriculture, forestry, and fisheries	16,618	$141,199	$ 165.40
Farms and agricultural services	16,260	138,531	163.84
Forestry and fisheries	358	2,669	143.35
Mining	13,450	252,296	360.73
Metal and coal mining	6,303	127,038	387.60
Crude petroleum and natural gas	3,553	60,784	329.00
Nonmetallic mining and quarrying	3,594	64,474	344.99
Construction	137,718	2,402,106	335.43
Building construction-general contractors	36,571	582,756	306.44
General contractors other than building	21,319	462,678	417.36
Construction-special trade contractors	79,828	1,356,673	326.83
Manufacturing	1,174,845	22,869,996	374.35
Foods and kindred products, and tobacco manufactures	52,407	790,770	290.17
Textile mill products	2,209	43,281	376.79
Apparel and other products	25,139	408,638	312.60
Lumber and wood products (except furniture)	14,088	148,274	202.40
Furniture and fixtures	21,752	321,653	284.37
Paper and allied products	23,557	395,984	323.26
Printing, publishing, and allied products	33,544	468,850	268.79
Chemicals and allied products	45,927	901,406	377.44
Petroleum refining and related industries	3,075	55,940	349.84
Rubber and misc. plastic products	37,343	495,049	254.94
Leather and leather products	3,583	39,031	209.49
Stone, clay, and glass products	22,386	389,527	334.62
Primary metal products	93,328	1,958,718	403.61
Fabricated metal products	144,466	2,490,429	331.52
Machinery (except electrical)	158,689	3,035,941	367.91
Electrical machinery, equipment, and supplies	51,840	906,358	336.23
Transportation equipment	420,208	9,725,920	445.11
Professional, scientific, and controlling instruments	12,081	172,068	273.90
Miscellaneous manufacturing industries	9,223	122,159	254.71
Transportation, communication, and utilities	140,762	2,534,417	346.25
Local railways and bus lines	4,392	36,621	160.35
Motor freight, transportation, and warehousing	46,870	893,756	366.71

TABLE V-21. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY INDUSTRY: 1978 (cont.)

Industry	Average employment[a]	Payrolls (000)	Average weekly earnings
Transportation (cont.)			
Water transportation	1,716	$ 27,546	$ 308.70
Transportation, other	12,098	187,842	298.59
Communication	40,520	710,897	337.39
Electric, gas, and sanitary services	35,166	677,756	370.64
Wholesale and retail trade	749,075	7,335,026	188.31
Wholesale trade	165,093	2,755,542	320.98
Retail building materials, hardware, and farm equipment	24,166	284,777	226.62
Retail general merchandise	93,834	765,165	156.82
Retail food	83,892	820,815	188.16
Retail automobile and gasoline service stations	73,893	898,435	233.82
Retail apparel and accessories	38,337	268,015	134.44
Retail furniture, home furnishings, and equipment	23,347	253,740	209.00
Eating and drinking places	184,855	806,375	83.89
Retail miscellaneous stores	61,658	482,162	150.38
Finance, insurance, and real estate	145,732	1,799,930	237.52
Credit agencies and banks	72,787	849,516	224.45
Insurance carriers	34,274	487,933	273.77
Insurance agents, brokers, & service	14,975	215,259	276.43
Real estate	22,114	220,614	191.85
Combined real estate, insurance, holding companies, and others	1,582	26,609	323.46
Services	546,464	6,015,379	211.69
Hotels, rooming houses, camps	25,947	147,914	109.63
Personal services	35,771	268,390	144.29
Business service, miscellaneous	87,963	912,622	199.52
Automobile repair, services, & garage	23,695	271,354	220.23
Miscellaneous repair services	10,277	133,535	249.88
Motion pictures	4,738	32,278	131.01
Amusement and recreation services, other	26,262	188,105	137.74
Medical and other health services	216,688	2,603,868	231.09
Legal services	14,275	245,570	330.82
Educational services	13,125	135,578	198.65
Social services	21,685	167,815	148.82
Museums	650	5,253	155.43
Nonprofit membership organizations	25,805	212,085	158.05
Private households	1,910	10,634	107.07
Miscellaneous services	37,673	680,377	347.31
TOTAL	2,924,664	43,350,349	285.04

SOURCE: Michigan Employment Security Commission, special release.
a. Average of 12 monthly figures.

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1977 AND 1978

County	1977			1978		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Alcona	820	5,611,888	$ 131.61	911	6,850,159	$ 144.60
Alger	1,398	12,938,813	177.99	1,391	14,513,549	200.65
Allegan	11,814	119,778,052	194.97	13,420	146,914,255	210.53
Alpena	7,767	88,229,817	218.45	8,195	103,510,440	242.90
Antrim	2,683	24,175,879	173.28	2,932	28,899,239	189.55
Arenac	2,463	19,306,139	150.74	2,224	18,284,380	158.10
Baraga	1,439	13,171,733	176.03	1,611	16,023,699	191.28
Barry	5,752	64,324,864	215.06	5,888	72,903,634	238.11
Bay	28,358	350,490,378	237.68	28,656	379,076,426	254.39
Benzie	1,866	15,659,603	161.39	2,045	18,166,351	170.83
Berrien	53,597	620,858,544	222.77	54,948	678,832,347	237.58
Branch	9,360	98,954,040	203.31	10,268	115,511,851	216.34
Calhoun	46,064	580,016,864	242.15	46,470	639,950,463	264.83
Cass	7,934	79,501,608	146.70	8,489	96,132,809	217.78
Charlevoix	4,943	45,959,446	178.81	5,241	54,291,254	199.21
Cheboygan	4,147	38,285,622	177.54	4,396	44,453,277	194.47
Chippewa	4,459	37,369,906	161.13	4,567	41,490,266	174.71
Clare	3,109	23,418,609	144.86	3,467	28,594,853	158.61
Clinton	4,256	44,063,209	199.10	4,875	53,852,843	212.44
Crawford	1,963	15,979,062	156.54	1,873	16,934,651	173.87
Delta	8,957	92,784,992	199.21	8,617	100,939,473	225.27
Dickinson	7,235	80,448,973	213.83	7,761	93,641,112	232.03
Eaton	8,528	87,151,740	196.53	9,003	98,641,159	210.70
Emmet	6,615	63,960,566	185.94	7,114	73,753,852	199.37
Genesee	149,620	2,521,028,232	324.03	157,054	2,814,160,875	344.59

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1977 AND 1978 (cont.)

County	1977			1978		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Manistee	5,048	54,481,357	$ 207.55	5,420	63,421,892	$ 225.03
Marquette	16,239	167,233,041	198.04	17,553	213,498,923	233.91
Mason	5,835	55,047,485	181.42	6,115	62,779,641	197.43
Mecosta	3,997	31,740,007	152.71	4,228	36,469,563	165.88
Menominee	5,455	49,665,245	175.09	5,739	57,387,895	192.30
Midland	26,369	428,752,896	312.69	26,803	466,600,051	334.78
Missaukee	642	4,873,325	145.98	781	6,761,273	166.48
Monroe	19,874	262,331,580	253.84	20,783	295,148,355	273.10
Montcalm	10,296	102,372,419	191.21	10,301	109,975,852	205.31
Montmorency	1,159	7,948,611	131.89	1,335	9,858,340	142.01
Muskegon	46,111	553,973,264	231.04	47,816	628,342,104	252.71
Newaygo	4,613	43,685,674	182.12	5,033	50,206,796	191.84
Oakland	330,621	4,594,962,672	267.27	361,409	5,394,099,325	287.02
Oceana	2,168	16,036,154	142.25	2,506	20,128,911	154.47
Ogemaw	2,317	20,342,162	168.84	2,624	24,758,614	181.45
Ontonagon	2,464	31,204,893	243.54	2,434	32,175,859	254.22
Osceola	2,886	28,497,879	189.89	2,976	31,898,293	206.13
Oscoda	606	4,297,095	136.36	602	4,559,015	145.64
Otsego	3,928	37,095,903	181.61	4,346	43,698,300	193.36
Ottawa	42,173	450,507,547	205.43	47,650	548,723,706	221.46
Presque Isle	2,015	23,378,719	223.12	2,157	26,233,682	233.89
Roscommon	2,318	15,281,012	126.78	2,218	16,932,693	146.81
Saginaw	72,404	1,078,399,447	286.43	75,622	1,219,250,432	309.24
Sanilac	6,552	62,221,151	182.63	6,852	73,961,751	207.58
Schoolcraft	1,672	15,503,421	178.32	1,635	16,910,122	198.90

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1977 AND 1978 (cont.)

County	1977			1978		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Gladwin	1,792	14,990,322	$ 160.87	2,039	18,384,471	$ 173.39
Gogebic	3,416	26,069,696	146.76	3,514	28,227,328	154.48
Grand Traverse	16,685	162,154,968	186.90	18,972	198,073,910	200.78
Gratiot	10,149	104,591,777	198.19	9,875	111,993,853	218.10
Hillsdale	8,265	88,565,037	206.07	8,894	101,371,720	219.19
Houghton	6,102	52,075,675	164.12	6,228	56,595,857	174.76
Huron	5,904	58,360,352	190.09	6,417	71,173,024	213.29
Ingham	93,729	1,258,655,570	258.24	100,185	1,436,211,425	275.68
Ionia	8,269	84,561,844	196.66	9,269	101,026,783	209.60
Iosco	3,889	33,278,047	164.56	4,048	38,873,828	184.68
Iron	2,397	17,451,295	140.01	2,347	18,655,653	152.86
Isabella	7,771	73,342,567	181.50	8,537	85,712,020	193.08
Jackson	41,595	527,008,767	243.65	43,997	606,098,435	264.92
Kalamazoo	72,160	892,495,803	237.85	75,582	998,465,278	254.04
Kalkaska	1,727	21,865,527	243.48	1,713	24,090,881	270.45
Kent	163,244	1,909,038,170	224.89	177,664	2,242,179,829	242.70
Keweenaw	174	1,233,069	136.28	181	1,355,047	143.97
Lake	501	3,249,367	124.73	490	3,414,382	134.00
Lapeer	8,064	83,089,363	198.15	9,624	101,287,088	202.39
Leelanau	1,473	1,000,634	130.64	1,724	12,733,154	142.04
Lenawee	22,360	265,234,312	228.12	23,284	291,632,393	240.87
Livingston	11,188	111,027,310	190.88	12,495	134,707,090	207.32
Luce	901	6,317,801	134.85	826	6,588,127	153.38
Mackinac	1,991	14,919,044	144.10	2,116	17,437,746	158.48
Macomb	178,657	2,735,199,928	294.42	197,516	3,214,002,347	312.93

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: 1977 AND 1978 (cont.)

County	1977			1978		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Shiawassee	11,664	119,164,189	$ 196.47	11,692	129,423,131	$ 212.87
St. Clair	26,087	302,677,421	223.13	27,240	344,301,756	243.07
St. Joseph	14,477	158,355,803	210.35	15,376	179,871,475	224.97
Tuscola	7,369	75,577,305	197.23	7,879	88,439,494	215.86
Van Buren	9,833	99,158,519	193.93	11,115	117,945,842	204.07
Washtenaw	83,422	1,214,956,801	280.08	91,633	1,465,617,528	307.59
Wayne	872,113	13,529,845,598	298.34	892,579	14,986,800,652	322.89
Wexford	6,753	63,371,449	180.47	6,868	70,518,405	197.46
State-wide	55,282	674,908,911	234.78	66,188	837,033,995	243.20
TOTAL	2,762,308	38,076,099,462	265.08	2,924,664	43,350,348,552	285.04

SOURCE: Michigan Employment Security Commission, special release.

a. Average of 12 monthly figures.

TABLE V-23. GROSS AND SPENDABLE WEEKLY EARNINGS OF PRODUCTION OR NONSUPERVISORY WORKERS IN MANUFACTURING, CONSTRUCTION, AND RETAIL TRADE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, ANNUAL AVERAGES: 1971-1979

Item	1971	1972	1973	1974	1975	1976	1977	1978	1979
				Manufacturing					
Gross average hourly earnings	$ 4.80	$ 5.28	$ 5.58	$ 6.01	$ 6.52	$ 7.23	$ 8.04	$ 8.76	$ 9.40
Average weekly hours	41.1	43.5	44.6	42.0	40.9	42.9	43.5	43.5	42.0
Gross average weekly earnings									
Current dollars	197	229	249	252	267	310	350	381	393
1967 dollars (real gross)	162	182	185	169	167	184	194	196	180
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	166	192	204	205	217	250	280	301	311
1967 dollars (real spendable)	136	152	152	138	136	148	155	155	142
Worker with no dependents									
Current dollars (after tax pay)	152	175	186	187	196	228	251	268	276
1967 dollars (real spendable	125	139	139	125	123	135	139	138	126
				Construction					
Gross average hourly earnings	$ 8.13	$ 8.59	$ 9.12	$ 9.50	$10.10	$10.60	$11.51	$12.35	n.a.
Average weekly hours	36.1	36.0	36.8	36.2	35.3	36.3	35.4	37.7	n.a.
Gross average weekly earnings									
Current dollars	293	309	336	344	356	384	407	466	n.a.
1967 dollars (real gross)	241	245	250	231	223	228	226	240	n.a.
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	239	252	268	272	279	304	321	359	n.a.
1967 dollars (real spendable)	197	200	200	183	174	180	178	185	n.a.
Worker with no dependents									
Current dollars (after tax pay)	n.a.	n.a.	245	248	254	275	287	319	n.a.
1967 dollars (real spendable)	n.a.	n.a.	182	167	159	163	159	164	n.a.

TABLE V-23. GROSS AND SPENDABLE WEEKLY EARNINGS OF PRODUCTION OR NONSUPERVISORY WORKERS IN MANUFACTURING, CONSTRUCTION, AND RETAIL TRADE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, ANNUAL AVERAGES: 1971-1979 (cont.)

Item	1971	1972	1973	1974	1975	1976	1977	1978	1979
				Retail trade[a]					
Gross average hourly earnings	$ 3.38	$ 3.55	$ 3.67	$ 3.79	$ 4.10	$ 4.34	$ 4.59	$ 5.01	n.a.
Average weekly hours	34.0	35.3	35.7	34.0	33.7	33.9	33.4	31.5	n.a.
Gross average weekly earnings									
Current dollars	115	125	131	129	138	147	153	158	n.a.
1967 dollars (real gross)	95	96	97	86	86	87	85	81	n.a.
Spendable average weekly earnings									
Worker with 3 dependents									
Current dollars (after tax pay)	102	111	115	114	121	133	140	143	n.a.
1967 dollars (real spendable)	84	88	85	76	76	79	78	74	n.a.
Worker with no dependents									
Current dollars (after tax pay)	92	96	103	101	108	117	123	126	n.a.
1967 dollars (real spendable)	75	79	77	68	67	69	68	65	n.a.

SOURCE: Bureau of Labor Statistics, North Central Region, Real Earnings, Detroit, March 1979; and Real Earnings, Detroit, December 1980.

a. Except eating and drinking places.

n.a.: not available.

TABLE V-24. AVERAGE (MEAN) HOURLY EARNINGS IN SELECTED MICHIGAN AREAS, BY SELECTED OCCUPATION: 1979

Occupation	Alpena, Standish, and Tawas City (July)	Ann Arbor (October)	Battle Creek (June)	Detroit (March)	Saginaw (November)	Upper Peninsula (June)
Secretaries						
Class A	$ n.a.	$ 8.47	$ n.a.	$ 9.01	$ n.a.	$ n.a.
Class B	n.a.	7.70	8.15	8.87	7.82	5.69
Class C	6.99	7.11	7.22	7.89	7.92	6.23
Class D	n.a.	5.89	7.17	6.73	6.36	4.63
Class E	6.65	n.a.	5.43	5.59	n.a.	n.a.
Total	7.13	6.77	7.15	7.76	7.94	5.41
Stenographers	6.78	5.43	6.62	6.83	6.23	6.04
Typists						
Class A	n.a.	5.90	n.a.	6.56	n.a.	n.a.
Class B	6.12	4.53	3.85	4.28	4.20	n.a.
Total	6.12	4.89	4.34	5.04	4.71	n.a.
File clerks						
Class A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Class B	n.a.	n.a.	n.a.	4.37	n.a.	n.a.
Class C	n.a.	3.81	4.05	3.83	3.63	n.a.
Total	n.a.	3.84	4.05	4.01	3.70	n.a.
Switchboard operators	n.a.	4.91	5.41	5.32	4.48	n.a.
Keypunch operators						
Class A	6.67	6.97	5.29	6.18	n.a.	7.19
Class B	n.a.	5.30	5.16	4.91	5.30	4.21
Total	5.93	5.85	5.19	5.32	5.87	5.75
Computer operators						
Class A	n.a.	n.a.	n.a.	8.80	n.a.	6.89
Class B	n.a.	n.a.	5.78	7.43	8.24	n.a.
Class C	n.a.	n.a.	5.79	7.32	n.a.	n.a.
Total	5.74	n.a.	6.13	7.62	7.81	6.37
Drafters						
Class A	n.a.	10.00	8.38	12.08	n.a.	n.a.
Class B	n.a.	8.44	7.44	9.40	9.14	6.59
Class C	n.a.	6.93	5.78	7.30	6.86	n.a.
Class D	n.a.	n.a.	n.a.	6.49	n.a.	n.a.
Class E	n.a.	n.a.	n.a.	4.24	n.a.	n.a.
Tracers	n.a.	5.63	n.a.	n.a.	n.a.	n.a.
Total	n.a.	8.15	7.56	9.71	8.76	6.34
Electronics technicians						
Class A	n.a.	8.21	n.a.	10.44	n.a.	n.a.
Class B	n.a.	6.65	8.17	9.15	n.a.	n.a.
Class C	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	n.a.	n.a.	9.16	9.70	n.a.	n.a.

TABLE V-24. AVERAGE (MEAN) HOURLY EARNINGS IN SELECTED MICHIGAN AREAS, BY SELECTED OCCUPATION: 1979 (cont.)

Occupation	Alpena, Standish, and Tawas City (July)	Ann Arbor (October)	Battle Creek (June)	Detroit (March)	Saginaw (November)	Upper Peninsula (June)
Mntn. carpenters	$ n.a.	$ n.a.	$ n.a.	$ 9.83	$ n.a.	$ 8.07
Mntn. electricians	7.77	10.95	9.60	10.25	n.a.	8.21
Mntn. painters	n.a.	n.a.	9.65	9.92	n.a.	n.a.
Mntn. machinists	n.a.	9.19	n.a.	9.89	n.a.	8.17
Mntn. mechanics						
Machinery	7.96	10.76	8.90	9.95	n.a.	7.65
Motor vehicle	8.21	10.10	9.03	9.67	n.a.	8.57
Mntn. pipefitters	n.a.	n.a.	9.76	10.07	n.a.	8.33
Mntn. sheet-metal workers	n.a.	n.a.	n.a.	10.04	n.a.	n.a.
Millwrights	n.a.	n.a.	n.a.	10.07	n.a.	n.a.
Mntn. trade helpers	n.a.	n.a.	n.a.	8.22	n.a.	n.a.
Machine tool operators (toolroom)	n.a.	n.a.	n.a.	10.18	n.a.	n.a.
Tool and die makers	n.a.	10.84	9.32	10.23	n.a.	n.a.
Stationary engineers	n.a.	11.04	8.73	10.06	n.a.	n.a.
Boiler tenders	n.a.	n.a.	8.82	8.34	n.a.	n.a.
Truck drivers						
Light truck	n.a.	4.61	n.a.	6.41	n.a.	n.a.
Medium truck	n.a.	n.a.	8.20	7.64	n.a.	5.34
Heavy truck	n.a.	n.a.	5.51	9.10	n.a.	n.a.
Tractor trailer	9.04	n.a.	9.19	8.99	8.93	n.a.
Total	7.97	8.21	7.83	8.44	8.95	8.44
Shipping clerks	n.a.	n.a.	n.a.	8.23	n.a.	n.a.
Receiving clerks	n.a.	n.a.	n.a.	7.73	6.89	n.a.
Warehousemen	n.a.	n.a.	n.a.	7.72	7.04	n.a.
Order fillers	n.a.	n.a.	n.a.	7.63	n.a.	n.a.
Shipping packers	n.a.	7.10	6.47	7.05	n.a.	4.65
Mtl. handling laborers	5.78	6.46	8.58	8.02	8.37	5.71
Forklift operators	6.55	8.85	7.91	8.35	n.a.	6.03
Guards	n.a.	n.a.	8.57	6.05	n.a.	6.22
Janitors, porters, and cleaners	n.a.	6.61	7.09	5.99	7.43	5.03

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Area Wage Survey, Detroit, Michigan, Metropolitan Area, March 1979 (Washington, D.C.: July 1979), Bulletin 2050-7, Tables A-1, A-2, A-4, A-5; Area Wage Survey, Saginaw, Michigan, Metropolitan Area, November 1979 (Washington, D.C.: February 1980), Bulletin 1050-52, Tables A-1, A-2, and A-5; Area Wage Survey, Upper Peninsula, Michigan, June 1979 (Chicago, Illinois: September 1979), Table 1; Area Wage Survey, Alpena-Standish-Tawas City, Michigan, July 1979 (Chicago, Illinois: November 1979), Table 1; Area Wage Survey, Battle Creek, Michigan, August 1979 (Chicago, Illinois: December 1979), Table 1; and Area Wage Survey, Ann Arbor, Michigan, October 1979 (Chicago, Illinois: January 1980), Table 1.
n.a.: not available.

TABLE V-25. CETA (COMPREHENSIVE EMPLOYMENT AND TRAINING ACT) PARTICIPANT SUMMARY, FISCAL YEAR: 1979

Characteristic	Percentage of total			
	Total titles II B/C, IID & VI	Total youth programs	Special CETA programs	Statewide aggregate for all CETA programs
Sex				
Male	50	52	77	53
Female	50	48	23	47
Age				
21 and under	35	100	32	53
22-54	62	(a)	65	45
55 and older	3	(a)	3	2
Education				
High school student	12	78	10	30
High school dropout	22	11	54	21
High school graduate or equivalent	44	8	28	33
Post high school	22	3	8	16
Economic status				
Receiving public assistance	30	55	14	36
Economically disadvantaged	83	96	91	87
Ethnic group				
White	62	43	36	55
Black	33	52	16	37
Hispanic	3	4	39	6
American Indian or Alaskan native	1	1	9	2
Asian or Pacific islander	1	(a)	(a)	(a)
Other characteristics				
Total veterans	14	(a)	18	10
Handicapped	6	4	5	5
Offender	9	5	20	8
Total participants (number)	106,934	54,932	12,852	174,718

SOURCE: Michigan Department of Labor, Bureau of Employment and Training, 1979 Report to the Governor (Lansing: 1980), Appendix E(3).

a. Less than 1%.

TABLE V-26. ESTIMATES OF WORKMEN'S COMPENSATION PAYMENTS IN MICHIGAN, BY TYPE OF INSURANCE: 1967-1977

(In thousands of dollars)

Year	Insurance losses paid by private insurance carriers	State and federal fund disbursements	Self-insurance payments	Total
1967	68,859	4,070	43,390	116,319
1968	80,602	5,691	51,345	137,638
1969	94,226	6,420	59,885	160,531
1970	105,090	6,646	66,485	178,221
1971	119,700	8,033	76,000	203,733
1972	140,677	8,362	93,745	242,784
1973	158,141	9,759	105,620	273,530
1974	180,536	10,845	120,400	311,781
1975	193,410	11,500	128,800	333,710
1976	222,754	16,975	151,000	390,729
1977	252,569	14,116	168,000	434,685

SOURCE: Social Security Administration, Social Security Bulletin, January 1966 through January 1977 (Washington, D.C.: monthly), vol. 40, no. 1 (January 1977): 35, vol. 41, no. 3 (March 1978): 33, and vol. 42, no. 10 (October 1979): 20.

TABLE V-27. NUMBER OF MINERS, MINERS' WIDOWS, AND MINERS' DEPENDENTS RECEIVING BLACK LUNG BENEFITS, AND MONTHLY AMOUNT, MICHIGAN AND THE UNITED STATES: DECEMBER 1973-1978

Year	Number			Monthly amount ($000)	
	Miners	Widows	Dependents	Miners	Widows
		Michigan			
1973	1,755	1,796	1,787	445.0	333.0
1974	1,839	2,063	1,842	496.0	401.0
1975	1,740	2,139	1,775	497.0	439.0
1976	1,655	2,210	1,602	491.0	472.0
1977	1,531	2,273	1,506	485.0	521.0
1978	1,399	2,279	1,456	470.0	553.0
		United States			
1973	159,837	124,154	177,500	40,400.0	23,300.0
1974	169,097	134,700	183,419	45,100.0	26,400.0
1975	165,405	139,407	177,409	46,600.0	28,900.0
1976	158,087	142,495	169,073	46,500.0	30,800.0
1977	148,720	144,543	164,136	47,100.0	33,400.0
1978	138,648	145,829	155,493	46,800.0	35,500.0

SOURCE: Social Security Administration, Social Security Bulletin, June 1974 through June 1979 (Washington, D.C.: monthly), vol. 42, no. 6 (June 1979): Table Q-33.

Between 1977 and 1978, earnings in Missaukee County increased by 33 percent, more rapidly than in any other county in Michigan. Oceana and Leelanau were second and third. These three counties benefited from heavy dependence on agriculture, the state's fastest growth sector in 1978. Missaukee's economy is nearly one-third agricultural, Oceana's one-quarter and Leelanau's more than one-fifth. Huron is the other Michigan county that relies on agriculture for over 20 percent of earnings. Missaukee County farming centers on dairying. Oceana is the nation's asparagus capital and a major producer of tart cherries and apples. Leelanau specializes in tart and sweet cherries. Huron County is the nation's navy bean capital. Agriculture was also the major underlying factor in the high level of growth of Clinton, Ionia, and Van Buren counties, which were 12 percent, 9 percent, and 10 percent dependent on farming, respectively. Dairying is important in Clinton and Ionia counties, apples and cherries in Van Buren. Although farming is a major element in the Thumb and Little Finger of the state and in a few other areas, it accounted for just over one percent of the Michigan earnings total and for 2.5 percent of the nation's (see Table XII-23). These data pertain to farming per se, exclusive of the manufacture and distribution of implements, chemicals, and so forth, and of food processing and distribution. These figures have just been released by the Bureau of Economic Analysis in Washington, D.C., part of the U.S. Department of Commerce.

BEA county earnings estimates are developed from reports that employers file with state employment agencies and from tax returns filed with the Internal Revenue Service. Total earnings are comprised of labor income and the net incomes of nonincorporated business enterprise, such as proprietary motels, restaurants, and grocery stores, as well as the business of professionals, such as physicians, dentists, lawyers, and trade contractors. These data are the best available yardsticks of economic activity taking place in counties, although they are not as comprehensive as gross national product accounts for the United States. Michigan counties are ranked in Table VI-11 on the basis of earnings growth rates between 1977 and 1978.

Montmorency farmers also experienced prosperity during 1978, but farming is responsible for less than 3 percent of earnings there. This small economy is relatively well diversified, with manufacturing the leading sector, retail trade second. Montmorency ranked fifth in 1978 in percentage of earnings derived from retail trade. Merchants depend on summer residents who own or rent cottages, cabins, and the like. Manufacturing does not have the predominance in Montmorency that it has in Michigan's southern regions, accounting for only 35 percent of total earnings during 1978, compared with 44 percent statewide (see Table XV-16). Nevertheless, earnings in manufacturing gained by 38 percent in Montmorency between 1977 and 1978 (fourth highest in the state, Table XV-17), and by 26 percent in retailing (third highest, Table XXI-15). Since the county's services sector is tiny, the statewide growth in that category was little affected by Montmorency's disappointing performance (see Table XXIII-14). The broad services category includes lodgings, amusements, and professional, business, repair, and personal services.

In Antrim County, fifth in earnings growth between 1977 and 1978, about 8.5 percent of earnings was derived from agriculture (principally cherries); this sector enjoyed a 168 percent increase. Services, which accounted for over 12 percent of earnings, grew by 40 percent. Antrim is relatively well endowed with seasonal housing as well as overnight accommodations. The popular Shanty Creek Lodge is located two miles south of Bellaire, and Schuss Mountain lies four miles west of Mancelona.

Grand Traverse enjoyed a spectacular increase in agricultural earnings, but this sector accounted for only 3 percent of the total. Manufacturing, services, and retail trade were the engines of growth here. The lodgings industry attracts conventions as well as tourists. Finance, insurance, and real estate are small but rapidly growing, as Traverse City is the financial distribution center of northern Michigan.

One county was responsible for 70 percent of the earnings increase in mining between 1977 and 1978. In Marquette County, Cleveland Cliffs expanded its mining operations. Low grade iron ore is enriched in taconite plants before shipment to steel centers in Indiana, Illinois, and Ohio. Miners' earnings in Marquette County rose by 43 percent. In 1978, 37 percent of the state's mining activity took place there, compared with 30 percent in 1977. Outside Marquette County, earnings from mining grew by a mere 8.5 percent.

Allegan was propelled by its agricultural and manufacturing sectors. This county ranks tenth in the relative importance of farming and matches the statewide average in dependence on manufacturing.

Ottawa owes its above average growth primarily to construction, but also to services. Finance, insurance, and real estate; retail trade; manufacturing; and agriculture posted earnings gains above state and national averages. The spectacular construction boom (a 65 percent jump in earnings, compared with 21 percent statewide) bodes future economic growth generally, since many of the new structures are factories, stores, and offices. Nearby Kent County also is experiencing a major expansion of its economic base, larger in sheer size than Ottawa's, but smaller in a relative sense because its economy is so much larger. The construction sector in Kent grew by 26 percent. Grand Rapids is the major business center for western Michigan and one of the stellar performers in terms of growth potential among the nation's cities in its population size class.

Other counties with outsized increases in the construction industries are Charlevoix (52 percent), Missaukee (48 percent), Clare (44 percent), Ingham (42 percent), Lapeer (38 percent), Muskegon (37 percent), Isabella (36 percent), St. Clair (33 percent), Otsego (32 percent), and Baraga (31 percent). In terms of construction earnings as a percentage of total earnings (Table XIV-1), no county among those ranked in the top ten, except St. Clair, shared in the rapid growth of the construction industry in this state between 1977 and 1978. In the case of Midland, Kalkaska, Alcona, Cheboygan, and Chippewa, this is because of construction booms that began before 1977, thus making the comparison between 1977 and 1978 less dramatic.

Michigan manufacturing grew relatively slowly between 1977 and 1978, both in comparison with the nation as a whole and with other sectors of the state's economy. Genessee County, where manufacturing generated 60 percent of the total earnings, grew even more slowly than the state in this regard. Flint is the home of the Buick Division of General Motors Corporation, which also operates a light truck plant and other factories there. Midland County, home of Dow Chemical and Dow Corning, depends on manufacturing for over one-half of total earnings. It also experienced a lackluster performance in its manufacturing sector. In a few counties where it is relatively unimportant, manufacturing activity grew rapidly. The top five in such growth are Houghton (earnings in manufacturing up 49 percent between 1977 and 1978), Missaukee (up 43 percent), Huron (up 39 percent), Montmorency (up 38 percent), and Clare (up 34 percent). Factory earnings declined in Keweenaw, Arenac, Luce, Crawford, and Montcalm counties.

Chippewa County alone suffered a decline in total earnings between 1977 and 1978, a result of the Kincheloe Air Force Base closing. Earnings in Arenac and Ontonagon counties just inched ahead during 1978. Arenac has a depressed durable goods manufacturing sector; Ontonagon shared in the depressed national market for copper. Its largest employer, Copper Range Mining Company, normally accounts for about two-thirds of total county earnings; during 1978 it generated less than one-half.

The numbers discussed above focus on economic activity taking place within counties, regardless of where the earnings recipients live. To calculate income received by persons, by county, the BEA has developed residence adjustments. For example, in 1978, residents of other counties earned $16,656,000 more in Ontonagon than Ontonagon residents earned elsewhere (see Table VI-12). That figure constitutes more than one-third of total earnings generated in the county. Others exporting a large percentage of earnings or, what amounts to the same thing, importing a large percentage of labor, are Ingham, Washtenaw, and Midland. Although Wayne ranks fifth in the proportion of earnings going to outside residents, it has by far the largest sheer dollar volume.

In the sheer dollar volume of earnings imported, or labor exported, Oakland is first and Macomb second, although they are 30 and 20, respectively, in the percentage ranking. These figures merely illustrate what is common knowledge--that the dependence of Oakland and Macomb residents on Wayne County jobs is not inconsequential. In a relative sense, the greatest such dependence in this state is Clinton's reliance on Ingham.

Total personal income is the sum of earnings received and income that entails no labor in return. The latter has two components: property income and transfer payments. Property income is received as dividends, interest, and rent by the owners of capital. The nine Michigan counties that outrank the others in percentage of personal income derived from property, or capital, ownership are all located in the northern Lower Peninsula (see Table VI-9). It is to these counties that many workers retire when they leave Genessee, Wayne, Macomb, and the other industrial centers. They insulate their summer cottages for year-round occupancy.

Transfer payments include Social Security and other pensions, welfare benefits, unemployment compensation, and other income not linked to current production or to capital ownership. During 1978, Social Security (federal, old age, survivors, and disability insurance) payments in Michigan accounted for 43 percent of total transfer payments; welfare, 14 percent; Medicare, 12 percent; military retirement and veterans' benefits, 6 percent; unemployment benefits, 6 percent; and other items, 19 percent.

Lake County is more heavily dependent on transfer payments than any other Michigan county (see Table VII-27). It ranks first in welfare benefits as a percentage of personal income (4 percent), and second in Social Security benefits as a percentage of personal income (18.1 percent). The rankings in Table VII-27 reflect Social Security benefits more than anything else, because they are the major component of transfer payments (see Table VII-28). Northern Michigan counties rank high in this table for the same reason that they are located at the top of the list in Table VII-9.

The sum of earnings received, property income, and transfer payments is a broad yardstick of the income available to persons. Per capita personal income indicates how counties fare, on the average, in the acquisition of slices of the national "pie." Oakland County does exceptionally well in this regard because it has high paying industry and because well-paid workers with jobs elsewhere reside there. Macomb ranks second in Michigan for much the same reason. Michigan's other counties with heavy dependence on manufacturing also rank high in per capita income because the majority of those jobs are high paying.

Most northern Michigan counties in the Lower Peninsula have low per capita incomes (see Table VI-8) because a high proportion of their residents are retirees living on accumulated wealth and pensions. Also, the retail and service industries that cater to them and to summer visitors offer low paying jobs, for the most part. The area provides summer employment for high school and college students as well as for older workers who stay there. A survey of the economic condition of these counties would likely find that the residents of Roscommon, Leelanau, Montmorency, Alcona, Oscoda, Benzie, Emmet, and Antrim counties consider themselves to be well off financially. In contrast, the survey would find a high proportion of the residents of Lake, Ontonagon, Alger, Chippewa, and Osceola counties locked into poverty.

Whereas personal income is the current income of residents of an area from all sources, the money income data prepared by the Bureau of the Census (Tables VI-14 through VI-17) exclude imputed items such as the rental value of owner occupied housing and food grown and consumed on farms. Essentially, personal income is intended to be a broad measure of the welfare of residents, while money income is the cash flow. Neither, it should be emphasized, includes the value of savings accounts, stock ownership, and other accumulated wealth.

Federal revenue sharing with state and local units of government is based, in part, on per capita money income figures such as those shown in Tables VI-14 and VI-15. The release from which those data were extracted also includes per capita money income data for Michigan townships. The

Bureau of the Census now is in the process of calculating 1977 per capita money income for all state and local governments in the country.

The poverty threshold is a multiple of the income needed to purchase an "economy" diet, one that just meets minimum standards of nutrition and diversity. Government studies have shown that for households with three or more individuals, the multiple is three, that is, one-third of the budget goes for food. In two-person households, food absorbs 27 percent of the minimum adequate budget, and for single individuals the ratio is even smaller. Detroit area poverty data appear in Table VI-18.

Consumer price indexes are compiled by the Bureau of Labor Statistics. Essentially, these represent the change in the cost of purchasing a fixed market basket of goods and services. CPIs are calculated for a selection of cities in the country, including Detroit. The national index is produced separately on the basis of average prices of individual items nationally.

Cost of living comparisons may be made through family budget studies conducted by the Bureau of Labor Statistics (Tables VI-21 and VI-22). The moderate family budget allows for "the maintenance of health and social well-being, the nurture of children, and participation in community activities."

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TABLE VI-1. TOTAL AND PER CAPITA PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1948-1979

Year	Total income (millions of dollars)			Per capita income (dollars)		
	Michigan	United States	Percentage[a]	Michigan	United States	Percentage[a]
1948	9,691	208,876	4.64	1,560	1,430	109.1
1949	9,627	205,793	4.68	1,520	1,384	109.8
1950	10,915	226,197	4.83	1,704	1,496	113.9
1951	12,176	253,232	4.81	1,874	1,652	113.4
1952	13,050	269,769	4.84	1,962	1,733	113.2
1953	14,741	285,456	5.16	2,161	1,804	119.8
1954	14,354	287,607	4.99	2,031	1,785	113.8
1955	15,900	308,266	5.16	2,183	1,876	116.4
1956	16,529	330,479	5.00	2,214	1,975	112.1
1957	16,870	348,460	4.84	2,229	2,045	109.0
1958	16,520	356,939	4.63	2,155	2,050	105.1
1959	17,520	380,016	4.61	2,256	2,145	105.2
1960	18,225	396,086	4.60	2,326	2,201	105.7
1961	18,169	411,301	4.42	2,302	2,248	102.4
1962	19,450	436,894	4.45	2,452	2,353	104.2
1963	20,770	459,075	4.52	2,578	2,436	105.8
1964	22,768	491,341	4.63	2,781	2,572	108.1
1965	25,386	532,022	4.77	3,038	2,750	110.5
1966	27,723	579,158	4.79	3,257	2,963	109.9
1967	29,046	620,020	4.68	3,366	3,142	107.1
1968	32,097	677,786	4.74	3,691	3,401	108.5
1969	34,803	738,233	4.71	3,963	3,667	108.1
1970	35,955	793,485	4.53	4,041	3,893	103.8
1971	39,191	851,952	4.60	4,371	4,132	105.8
1972	43,432	935,462	4.64	4,804	4,493	106.9
1973	48,467	1,045,303	4.64	5,341	4,981	107.2
1974	51,850	1,147,257	4.52	5,687	5,428	104.8
1975	54,737	1,248,631	4.38	6,008	5,861	102.5
1976	61,601	1,374,189	4.48	6,760	6,401	105.6
1977	69,534	1,522,766	4.57	7,601	7,038	108.0
1978P	77,985	1,709,616	4.56	8,487	7,840	108.3
1979P	85,341	1,915,999	4.45	9,269	8,706	106.5

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Michigan as a percentage of the United States.

P: Preliminary.

TABLE VI-2. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1973-1978

(Dollar figures in thousands)

	1973	1974	1975	1976	1977	1978
Labor and proprietors' earnings, by place of work[a]						
Michigan	40,225,450	41,726,198	42,304,121	48,571,145	55,509,630	62,813,664
United States	834,990,000	898,702,000	951,087,000	1,047,975,000	1,164,755,000	1,318,750,000
Percentage[b]	4.8	4.6	4.4	4.6	4.8	4.8
Social insurance contributions						
Michigan	1,928,927	2,071,770	2,120,714	2,369,731	2,680,799	3,051,329
United States	41,949,000	47,388,000	50,193,000	55,139,000	60,607,000	69,156,000
Percentage[b]	4.6	4.4	4.2	4.3	4.4	4.4
Residence adjustment						
Michigan	210,910	228,805	252,490	294,602	325,680	405,124
United States	- 236,000	- 250,000	- 269,000	- 145,029	- 202,687	- 411,000
Percentage[b]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net labor and proprietors' earnings, by place of residence						
Michigan	38,507,433	39,883,233	40,435,897	46,496,016	53,154,511	60,167,459
United States	792,805,000	851,064,000	900,625,000	992,690,971	1,103,945,313	1,249,594,000
Percentage[b]	4.9	4.7	4.5	4.7	4.8	4.8
Dividends, interest, and rent[c]						
Michigan	5,175,334	5,861,107	6,330,318	7,038,391	7,791,239	8,800,404
United States	133,407,000	155,367,000	169,840,000	186,728,000	207,301,000	236,340,000
Percentage[b]	3.9	3.8	3.7	3.8	3.8	3.7

TABLE VI-3. ANALYSIS OF THE LABOR AND PROPRIETORS' EARNINGS COMPONENT OF PERSONAL INCOME, BY INDUSTRIAL SECTOR, IN MICHIGAN AND THE UNITED STATES: 1973-1978

Sector	Earnings, 1978		Percentage change	
	Millions of dollars	Percentage	1973 to 1978	1977 to 1978
	Michigan			
Manufacturing	27,412	43.64	58	12
Nondurable goods	4,071	6.48	55	10
Durable goods	23,341	37.16	59	13
Services	8,620	13.72	71	14
Retail trade	5,515	8.78	44	11
Transportation and public utilities	3,437	5.47	57	15
Wholesale trade	3,148	5.01	48	16
Contract construction	3,047	4.85	45	21
Finance, insurance and real estate	2,394	3.81	71	14
Agriculture	675	1.07	15	25
Mining	313	.49	82	19
Other private sector	134	.21	73	19
State and local government[a]	6,936	11.04	53	9
Federal, civilian	986	1.57	47	10
Federal, military	194	.31	1	- 3
TOTAL	62,814	100.00	56	13
	United States			
Manufacturing	345,771	26.22	57	13
Nondurable goods	121,597	9.22	53	10
Durable goods	224,174	16.99	60	14
Services	221,951	16.83	74	14
Retail trade	131,687	9.98	52	12
Transportation and public utilities	100,749	7.64	63	14
Wholesale trade	86,442	6.55	71	13
Contract construction	79,872	6.06	49	16
Finance, insurance and real estate	76,207	5.78	76	15
Agriculture	33,188	2.52	- 8	31
Mining	20,552	1.56	145	17
Other private sector	5,455	.41	85	19
State and local government[a]	144,364	10.95	55	9
Federal, civilian	52,685	3.99	51	9
Federal, military	19,847	1.50	18	5
TOTAL	1,318,750	100.00	58	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Includes publicly controlled institutions of education and other educational institutions.

TABLE VI-5. QUARTERLY PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, SEASONALLY ADJUSTED ANNUAL RATES: 1948-1979

(In millions of dollars)

Year and quarter	Michigan	United States	Year and quarter	Michigan	United States
1948			1956		
First	9,374	201,994	First	16,225	322,244
Second	9,512	207,412	Second	16,264	327,793
Third	9,889	213,073	Third	16,510	332,324
Fourth	9,988	213,027	Fourth	17,116	339,554
1949			1957		
First	9,728	207,250	First	17,015	343,063
Second	9,530	205,701	Second	16,822	347,383
Third	9,790	204,660	Third	16,866	351,859
Fourth	9,461	205,562	Fourth	16,775	351,534
1950			1958		
First	10,043	219,377	First	16,403	350,598
Second	10,548	219,722	Second	16,182	352,220
Third	11,330	228,425	Third	16,790	358,997
Fourth	11,660	237,331	Fourth	16,707	365,938
1951			1959		
First	11,967	245,204	First	17,058	371,656
Second	12,233	252,077	Second	17,676	380,075
Third	12,200	255,254	Third	17,677	381,504
Fourth	12,303	260,394	Fourth	17,667	386,819
1952			1960		
First	12,574	262,155	First	18,325	391,283
Second	12,721	265,767	Second	18,270	396,358
Third	12,925	272,731	Third	18,262	397,958
Fourth	13,980	278,424	Fourth	18,045	398,746
1953			1961		
First	14,566	282,287	First	17,687	401,934
Second	14,840	286,310	Second	18,083	407,681
Third	14,882	286,578	Third	18,228	413,883
Fourth	14,677	286,648	Fourth	18,679	421,706
1954			1962		
First	14,291	285,494	First	18,897	427,936
Second	14,392	284,702	Second	19,313	435,195
Third	14,089	287,311	Third	19,595	439,672
Fourth	14,642	292,922	Fourth	19,997	444,773
1955			1963		
First	15,249	297,773	First	20,201	450,338
Second	15,848	305,088	Second	20,419	455,075
Third	16,085	312,400	Third	20,857	461,547
Fourth	16,417	317,802	Fourth	21,602	469,339

TABLE VI-5. QUARTERLY PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, SEASONALLY ADJUSTED ANNUAL RATES: 1948-1979 (cont.)

(In millions of dollars)

Year and quarter	Michigan	United States	Year and quarter	Michigan	United States
1964			1972		
First	22,022	478,015	First	41,932	905,060
Second	22,575	487,146	Second	42,909	920,203
Third	23,161	496,151	Third	43,666	941,186
Fourth	23,316	504,052	Fourth	45,220	975,403
1965			1973		
First	24,338	514,523	First	47,108	1,004,828
Second	25,056	524,704	Second	48,114	1,031,131
Third	25,471	538,353	Third	50,305	1,066,790
Fourth	26,681	550,507	Fourth	51,826	1,099,630
1966			1974		
First	26,815	562,317	First	51,300	1,107,391
Second	27,375	572,752	Second	52,539	1,137,933
Third	28,078	585,057	Third	54,858	1,171,724
Fourth	28,624	596,505	Fourth	55,277	1,189,836
1967			1975		
First	28,466	605,965	First	52,212	1,197,357
Second	28,747	613,279	Second	53,565	1,230,670
Third	29,594	625,139	Third	55,455	1,267,216
Fourth	29,376	635,696	Fourth	57,093	1,298,542
1968			1976		
First	31,001	652,890	First	59,455	1,333,366
Second	31,679	670,441	Second	61,188	1,356,675
Third	32,389	686,839	Third	61,985	1,385,519
Fourth	33,321	700,974	Fourth	63,972	1,421,988
1969			1977		
First	34,985	726,965	First	66,769	1,462,670
Second	35,674	743,953	Second	68,972	1,498,650
Third	36,440	759,986	Third	70,789	1,532,619
Fourth	37,126	774,796	Fourth	71,635	1,583,508
1970			1978		
First	36,475	786,609	First	74,682	1,624,665
Second	37,552	807,993	Second	76,589	1,677,971
Third	37,791	816,677	Third	77,618	1,726,286
Fourth	36,813	821,614	Fourth	81,397	1,782,519
1971			1979		
First	38,065	827,995	First	84,812	1,844,221
Second	37,552	807,993	Second	84,859	1,885,506
Third	39,355	857,893	Third	85,460	1,939,137
Fourth	40,345	874,406	Fourth	86,233	1,995,131

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-2. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1973-1978 (cont.)

(Dollar figures in thousands)

	1973	1974	1975	1976	1977	1978
			Transfer payments[d]			
Michigan	4,780,126	5,945,399	7,822,268	8,118,190	8,491,886	9,017,196
United States	118,886,000	140,826,000	178,166,000	193,915,000	208,824,000	224,093,000
Percentage[b]	4.0	4.2	4.4	4.2	4.1	4.0
			Personal income, by place of residence			
Michigan	48,462,893	51,689,739	54,588,483	61,652,597	69,437,636	77,985,059
United States	1,045,098,000	1,147,257,000	1,248,631,000	1,373,333,971	1,520,070,313	1,709,616,000
Percentage[b]	4.6	4.5	4.4	4.5	4.6	4.6

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. See Table VI-3 for details.

b. Michigan as a percentage of United States.

c. See Table VI-4 for detail.

d. See Table VII-2. for detail.

n.a.: not applicable.

TABLE VI-4. ANALYSIS OF THE DIVIDEND, INTEREST, AND RENT COMPONENT OF PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1973-1978

(Dollar figures in thousands)

Year		Dividends	Interest		Rent		Total
			Monetary	Imputed[a]	Monetary	Imputed[b]	
1973	Michigan	1,028,826	1,094,370	1,255,899	231,104	565,135	5,175,334
	United States	27,792,000	53,830,000	30,221,000	11,116,000	10,448,000	27,792,000
	Percentage[c]	3.7	3.9	4.2	2.1	5.4	18.6
1974	Michigan	1,097,636	2,597,806	1,453,386	222,022	490,257	586,107
	United States	30,963,000	67,280,000	35,734,000	11,806,000	9,584,000	30,963,000
	Percentage[c]	3.5	3.9	4.1	1.9	5.1	18.9
1975	Michigan	1,142,627	2,806,658	1,611,817	195,543	573,673	6,330,318
	United States	31,885,000	74,704,000	40,825,000	10,385,000	11,541,000	31,885,000
	Percentage[c]	3.6	3.8	4.0	1.8	5.0	19.9
1976	Michigan	1,444,072	3,062,686	1,742,633	217,059	571,941	7,038,391
	United States	37,898,000	82,733,000	43,558,000	11,583,000	10,956,000	37,898,000
	Percentage[c]	3.8	3.7	4.0	1.9	5.2	18.6
1977	Michigan	1,667,466	3,398,119	1,981,210	251,566	492,878	7,791,239
	United States	43,651,000	91,917,000	49,244,000	13,420,000	9,069,000	43,651,000
	Percentage[c]	3.8	3.7	4.0	1.9	5.4	17.9
1978	Michigan	1,743,726	3,861,481	2,389,413	263,381	542,403	8,800,404
	United States	47,164,000	103,537,000	59,740,000	15,414,000	10,485,000	236,340,000
	Percentage[c]	3.7	3.7	4.0	1.7	5.2	3.7

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Value of financial services (mostly "free" checking accounts) rendered persons by banks and other financial institutions without charge plus income withheld by life insurance companies and mutual financial intermediaries on the account of persons, such as the addition of income to policy holder reserves held by life insurance companies.

b. Gross rental income imputed to nonfarm residents of owner-occupied nonfarm dwelling units less the normal expenses incurred in home ownership; that is, the net rent that nonrenters save from owning the homes they live in.

c. Michigan as a percentage of United States.

TABLE VI-6. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Alcona	19.0	20.8	23.5	26.4	28.9	33.1	38.5	43.1	47.7
Alger	20.6	22.6	25.0	27.8	31.2	35.2	39.8	43.3	47.9
Allegan	207.9	223.1	255.6	288.5	316.2	336.6	375.3	425.7	499.0
Alpena	93.9	103.5	116.1	126.9	142.1	156.4	172.8	190.2	216.4
Antrim	36.9	40.6	46.9	53.8	62.3	69.0	76.0	86.8	101.9
Arenac	32.4	35.7	39.9	45.9	53.3	55.9	65.6	74.1	81.4
Baraga	23.3	25.1	28.3	29.0	31.8	36.4	40.5	43.6	49.6
Barry	123.2	134.4	152.6	169.5	180.8	195.6	219.0	229.0	274.1
Bay	415.4	461.8	492.5	551.5	613.1	649.1	735.8	836.4	921.7
Benzie	27.0	30.2	33.6	37.6	42.0	45.7	51.1	57.7	66.0
Berrien	639.8	687.9	774.2	854.1	929.7	960.5	1,029.2	1,143.9	1,266.2
Branch	116.0	132.5	146.6	168.6	177.4	198.3	219.1	253.9	285.4
Calhoun	558.7	611.8	672.3	739.8	789.0	865.5	964.5	1,050.6	1,156.3
Cass	151.2	164.7	191.0	217.0	223.7	239.2	272.9	300.1	339.6
Charlevoix	50.2	55.0	63.2	70.4	78.5	87.3	98.0	110.0	125.2
Cheboygan	48.9	53.4	60.1	67.2	74.4	84.1	93.9	103.3	116.2
Chippewa	92.1	102.2	112.0	125.3	136.9	153.4	167.7	159.4	152.5
Clare	45.7	50.2	57.5	63.7	73.5	83.8	95.7	110.8	123.8
Clinton	168.2	191.9	215.7	241.0	257.9	271.2	307.3	350.2	403.5
Crawford	19.4	18.7	21.9	25.9	29.8	37.3	40.9	45.4	49.8
Delta	110.5	116.6	128.6	142.7	162.8	177.9	202.2	215.8	236.1
Dickinson	78.1	95.0	94.8	105.6	123.2	136.3	151.6	169.2	191.6
Eaton	254.2	293.3	324.8	367.9	375.6	424.8	484.2	569.8	638.1
Emmet	63.1	71.0	79.1	88.1	99.0	109.1	122.2	136.3	153.4
Genesee	1,679.7	1,992.6	2,173.6	2,424.7	2,453.0	2,667.8	3,199.6	3,702.0	4,065.7

TABLE VI-6. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Gladwin	38.9	42.2	47.6	53.2	61.3	66.5	75.0	86.4	99.7
Gogebic	63.3	67.0	73.2	80.1	89.9	97.8	104.5	107.6	118.0
Grand Traverse	148.7	164.9	185.2	209.8	235.7	257.6	290.2	329.6	385.7
Gratiot	130.6	143.7	165.9	186.0	211.8	210.8	228.4	251.2	273.8
Hillsdale	121.1	132.5	151.1	173.2	185.1	192.3	217.4	247.1	276.7
Houghton	93.7	101.3	107.8	119.1	132.5	148.4	165.9	179.8	197.9
Huron	110.1	115.9	133.2	159.4	191.0	183.6	192.9	217.0	252.8
Ingham	1,006.5	1,153.3	1,268.0	1,408.8	1,468.3	1,631.9	1,852.1	2,081.3	2,307.7
Ionia	131.9	143.0	162.0	184.7	200.3	213.1	239.3	266.9	307.4
Iosco	78.8	87.3	98.0	108.8	118.9	130.1	146.5	155.7	169.8
Iron	36.2	40.5	44.3	48.2	56.3	63.8	70.7	76.8	83.7
Isabella	121.1	133.1	151.0	169.0	196.3	202.0	228.6	252.2	289.8
Jackson	573.1	591.7	662.6	742.1	794.9	853.1	921.2	1,020.0	1,149.5
Kalamazoo	809.9	862.5	927.7	1,030.7	1,141.3	1,250.0	1,379.6	1,543.6	1,718.2
Kalkaska	15.4	15.8	18.6	22.2	28.7	37.3	44.3	50.8	56.2
Kent	1,613.5	1,737.5	1,927.4	2,133.1	2,337.0	2,465.4	2,704.3	3,043.1	3,477.4
Keweenaw	5.9	6.5	6.9	7.4	8.1	8.9	9.9	10.9	12.1
Lake	15.0	17.1	19.7	21.5	23.6	25.1	27.9	30.5	33.5
Lapeer	177.9	200.6	228.9	261.8	280.7	302.6	350.1	420.5	484.3
Leelanau	35.2	39.3	44.9	50.7	59.8	61.9	67.3	77.7	91.4
Lenawee	311.6	321.2	366.8	417.5	443.3	477.1	527.3	606.1	669.1
Livingston	215.6	240.4	278.7	331.8	374.6	411.7	494.0	585.9	695.5
Luce	20.0	22.3	24.4	26.7	30.2	35.0	39.3	43.8	46.8
Mackinac	27.4	30.3	34.0	38.4	43.0	48.8	55.8	60.8	66.9
Macomb	2,715.2	2,958.1	3,319.4	3,785.5	4,049.9	4,288.6	4,963.1	5,751.7	6,507.6

TABLE VI-6. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Manistee	62.3	69.0	74.0	75.1	85.9	98.4	109.0	122.3	139.[illegible]
Marquette	202.9	220.5	247.5	278.3	311.4	352.6	397.5	425.6	4[illegible]
Mason	68.1	80.8	88.2	88.3	104.5	109.1	120.9	133.1	1[illegible]
Mecosta	66.8	72.5	83.0	91.8	103.8	115.6	125.5	139.7	158.[illegible]
Menominee	68.0	71.4	80.2	90.0	102.9	111.2	123.5	137.1	157.1
Midland	275.8	297.9	315.9	340.0	392.8	421.7	482.5	544.1	595.5
Missaukee	18.2	19.8	23.3	27.5	29.8	34.2	37.4	39.9	47.1
Monroe	437.7	475.1	542.1	615.1	651.1	699.3	790.3	915.1	1,018.0
Montcalm	129.8	141.1	151.4	169.0	197.2	207.6	225.7	253.9	290.9
Montmorency	14.1	15.9	18.7	21.5	25.0	27.5	31.5	36.2	42.3
Muskegon	556.8	569.4	638.4	688.3	761.3	812.5	890.8	973.9	1,095.0
Newaygo	86.3	92.9	104.0	113.6	121.5	131.6	147.8	163.2	188.7
Oakland	4,677.5	5,137.8	5,725.6	6,481.3	6,917.1	7,373.8	8,355.1	9,648.8	10,979.2
Oceana	52.9	56.8	62.7	69.6	81.9	84.9	92.3	102.3	119.9
Ogemaw	29.3	32.6	38.4	42.6	50.5	56.2	64.8	70.9	79.7
Ontonagon	31.0	31.8	37.1	41.2	44.8	51.5	50.2	51.5	53.4
Osceola	41.9	43.1	50.6	60.2	66.8	72.1	74.6	83.6	93.2
Oscoda	10.4	12.2	14.2	15.7	19.1	21.6	24.2	26.4	29.2
Otsego	31.4	35.3	41.6	48.7	54.3	63.2	73.1	83.3	94.6
Ottawa	477.5	512.1	582.1	655.2	712.9	757.0	847.1	978.0	1,136.6
Presque Isle	33.0	36.1	40.5	45.3	52.2	57.8	63.2	70.6	80.2
Roscommon	30.7	35.1	39.1	42.9	49.6	58.3	66.7	76.1	84.4
Saginaw	803.7	942.0	1,036.7	1,165.0	1,226.7	1,298.1	1,509.5	1,728.7	1,913.8
St. Clair	438.3	471.4	520.1	582.2	633.7	679.4	756.5	858.5	972.8
St. Joseph	173.7	186.9	212.0	241.6	249.3	276.3	305.4	338.6	376.9

TABLE VI-6. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In millions of dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Sanilac	113.6	121.3	140.3	154.4	177.5	179.3	195.9	221.3	256.0
Schoolcraft	22.8	23.9	26.4	28.6	32.3	37.7	41.2	45.3	50.5
Shiawassee	225.9	251.1	284.8	317.4	345.0	370.1	411.3	469.1	525.0
Tuscola	160.2	178.1	202.0	233.4	272.2	269.0	305.7	352.3	397.6
Van Buren	186.4	200.4	225.5	254.2	284.1	298.5	329.6	365.9	420.9
Washtenaw	968.8	1,080.7	1,199.6	1,353.5	1,450.7	1,585.3	1,804.8	2,062.0	2,331.1
Wayne	11,709.8	12,520.1	13,739.8	15,124.9	15,902.0	16,152.2	17,974.4	19,929.8	22,085.4
Wexford	57.1	63.3	69.8	82.4	92.0	100.3	114.2	129.2	143.0
Michigan	35,954.7	39,190.6	43,432.5	48,467.4	51,850.5	54,736.9	61,601.3	69,533.7	77,985.1
Standard Metropolitan Statistical Areas									
Ann Arbor	968.8	1,080.7	1,199.6	1,353.5	1,450.7	1,585.3	1,804.8	2,062.0	2,331.1
Battle Creek	681.9	746.3	824.9	909.3	969.8	1,061.1	1,183.6	1,289.6	1,430.4
Bay City	415.4	461.8	492.5	551.5	613.1	649.1	735.8	836.4	921.7
Detroit	19,934.4	21,528.4	23,812.4	26,567.6	28,157.9	29,208.4	32,893.2	37,195.1	41,724.8
Flint	1,905.7	2,243.7	2,458.5	2,742.1	2,797.9	3,037.9	3,610.9	4,171.1	4,590.7
Grand Rapids	2,091.0	2,249.5	2,509.5	2,788.3	3,049.8	3,222.4	3,551.4	4,021.1	4,614.0
Jackson	573.1	591.7	662.6	742.1	794.9	853.1	921.2	1,020.0	1,149.5
Kalamazoo-Portage	996.3	1,062.9	1,153.3	1,284.9	1,425.4	1,548.5	1,709.3	1,909.5	2,139.1
Lansing-E. Lansing	1,560.8	1,781.4	1,970.5	2,202.4	2,302.1	2,540.9	2,882.9	3,268.2	3,656.7
Muskegon-Muskegon Hghts-Norton Shores	609.7	626.2	701.1	757.8	843.1	897.4	983.0	1,076.3	1,214.9
Saginaw	803.7	942.0	1,036.7	1,165.0	1,226.7	1,298.1	1,509.5	1,728.7	1,913.8

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, special release.

TABLE VI-7. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Alcona	2,632	2,741	2,898	3,190	3,416	3,867	4,373	4,755	5,156
Alger	2,414	2,671	3,000	3,237	3,552	3,883	4,222	4,421	4,779
Allegan	3,110	3,278	3,677	4,127	4,495	4,720	5,176	5,789	6,748
Alpena	3,040	3,265	3,628	3,931	4,384	4,732	5,216	5,703	6,485
Antrim	2,890	3,040	3,439	3,790	4,137	4,455	4,832	5,422	6,251
Arenac	2,877	3,063	3,312	3,735	4,188	4,253	4,952	5,464	6,025
Baraga	3,002	3,277	3,658	3,655	4,015	4,493	4,974	5,206	5,785
Barry	3,218	3,459	3,814	4,256	4,459	4,711	5,225	5,647	6,395
Bay	3,536	3,904	4,137	4,609	5,097	5,408	6,135	6,927	7,581
Benzie	3,142	3,525	3,812	4,001	4,316	4,592	4,940	5,461	6,238
Berrien	3,902	4,186	4,636	5,059	5,486	5,646	6,026	6,724	7,570
Branch	3,051	3,434	3,728	4,343	4,566	5,224	5,743	6,668	7,336
Calhoun	3,947	4,367	4,754	5,197	5,567	6,141	6,880	7,491	8,217
Cass	3,495	3,816	4,408	4,869	4,961	5,230	5,979	6,583	7,489
Charlevoix	3,014	3,206	3,685	3,919	4,323	4,687	5,126	5,622	6,465
Cheboygan	2,927	3,098	3,345	3,603	3,882	4,329	4,728	5,135	5,863
Chippewa	2,830	3,079	3,255	3,597	3,811	4,256	4,564	4,407	4,999
Clare	2,712	2,862	3,133	3,291	3,597	3,928	4,293	4,832	5,195
Clinton	3,467	3,945	4,443	4,792	5,011	5,163	5,830	6,498	7,341
Crawford	2,961	2,758	3,116	3,425	3,715	4,505	4,633	4,975	5,465
Delta	3,063	3,172	3,439	3,781	4,252	4,547	5,096	5,400	5,857
Dickinson	3,286	3,554	3,907	4,353	5,035	5,465	6,038	6,661	7,341
Eaton	3,675	4,174	4,541	4,978	5,015	5,472	6,260	7,189	7,776
Emmet	3,409	3,690	4,042	4,375	4,765	5,123	5,702	6,345	7,144
Genesee	3,766	4,443	4,818	5,355	5,427	5,944	7,163	8,253	9,016

TABLE VI-7. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Gladwin	2,862	3,004	3,229	3,453	3,771	3,961	4,359	4,887	5,442
Gogebic	3,069	3,266	3,561	3,863	4,332	4,718	5,115	5,339	6,020
Grand Traverse	3,769	4,066	4,408	4,841	5,228	5,718	6,298	6,952	7,965
Gratiot	3,319	3,613	4,155	4,626	5,296	5,281	5,776	6,334	6,965
Hillsdale	3,242	3,470	3,883	4,424	4,645	4,788	5,383	6,091	6,717
Houghton	2,689	2,838	2,970	3,292	3,626	4,011	4,441	4,814	5,306
Huron	3,211	3,303	3,774	4,484	5,395	5,122	5,373	6,051	7,054
Ingham	3,851	4,384	4,760	5,245	5,435	6,081	6,858	7,730	8,516
Ionia	2,865	3,053	3,394	3,917	4,236	4,485	4,946	5,441	6,190
Iosco	3,125	3,292	3,555	3,898	4,187	4,570	5,032	5,187	5,571
Iron	2,624	2,966	3,179	3,499	4,056	4,485	4,873	5,255	5,686
Isabella	2,693	2,865	3,130	3,516	3,920	4,087	4,519	4,932	5,565
Jackson	4,002	4,132	4,598	5,136	5,437	5,807	6,260	6,859	7,656
Kalamazoo	4,021	4,289	4,579	5,147	5,660	6,204	6,790	7,531	8,259
Kalkaska	2,824	2,540	2,655	2,762	3,879	4,403	3,925	4,635	4,921
Kent	3,924	4,216	4,639	5,078	5,521	5,811	6,331	7,053	7,980
Keweenaw	2,536	2,605	3,012	3,323	3,757	4,035	4,235	4,601	5,446
Lake	2,609	2,773	3,068	3,305	3,550	3,693	4,062	4,303	4,812
Lapeer	3,375	3,700	4,141	4,559	4,663	4,903	5,554	6,514	7,216
Leelanau	3,240	3,493	3,849	4,213	4,895	4,973	5,296	5,989	6,825
Lenawee	3,798	3,893	4,395	4,920	5,151	5,524	6,110	7,022	7,667
Livingston	3,625	3,903	4,329	4,763	4,993	5,298	6,083	6,778	7,536
Luce	2,907	3,275	3,585	3,900	4,254	4,966	5,446	6,022	6,368
Mackinac	2,814	3,009	3,290	3,722	4,078	4,604	5,257	5,654	5,968
Macomb	4,323	4,651	5,188	5,777	6,100	6,428	7,378	8,395	9,385

TABLE VI-7. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Manistee	3,039	3,279	3,497	3,533	4,070	4,552	4,994	5,581	6,194
Marquette	3,117	3,302	3,624	4,081	4,431	5,081	5,576	5,819	6,747
Mason	2,979	3,394	3,604	3,560	4,283	4,430	4,866	5,275	6,112
Mecosta	2,368	2,501	2,703	2,834	3,104	3,414	3,656	4,018	4,551
Menominee	2,758	2,867	3,211	3,595	4,122	4,373	4,843	5,233	5,931
Midland	4,313	4,599	4,861	5,157	5,919	6,242	7,098	7,852	8,542
Missaukee	2,502	2,516	3,022	3,459	3,572	3,887	4,123	4,260	4,879
Monroe	3,659	3,911	4,388	4,937	5,210	5,538	6,224	7,052	7,721
Montcalm	3,260	3,488	3,637	4,011	4,608	4,729	5,087	5,627	6,412
Montmorency	2,667	2,952	3,274	3,394	3,674	3,978	4,400	4,927	5,472
Muskegon	3,533	3,594	4,018	4,355	4,839	5,162	5,617	6,131	6,894
Newaygo	3,076	3,282	3,601	3,808	3,996	4,214	4,685	5,044	5,656
Oakland	5,143	5,603	6,193	6,875	7,223	7,640	8,605	9,759	10,877
Oceana	2,920	3,049	3,256	3,568	4,095	4,096	4,433	4,872	5,708
Ogemaw	2,449	2,663	3,011	3,146	3,539	3,773	4,275	4,635	4,754
Ontonagon	2,925	2,956	3,421	3,700	4,094	4,546	4,394	4,694	4,992
Osceola	2,788	2,717	3,058	3,636	3,963	4,183	4,196	4,589	5,121
Oscoda	2,179	2,502	2,730	2,777	3,224	3,527	3,909	4,111	4,383
Otsego	2,992	3,253	3,580	3,923	4,126	4,708	5,263	5,807	6,595
Ottawa	3,720	3,959	4,424	4,788	5,136	5,369	5,929	6,689	7,609
Presque Isle	2,559	2,767	3,057	3,297	3,788	4,168	4,507	5,010	5,700
Roscommon	3,041	3,233	3,394	3,317	3,633	4,018	4,415	4,826	5,210
Saginaw	3,647	4,222	4,615	5,161	5,415	5,736	6,663	7,604	8,407
St. Clair	3,643	3,784	4,109	4,568	4,908	5,233	5,790	6,506	7,287
St. Joseph	3,659	3,908	4,314	4,835	4,914	5,435	5,969	6,590	7,276

TABLE VI-7. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES AND STANDARD METROPOLITAN STATISTICAL AREAS: 1970-1978 (cont.)

(In dollars)

County	1970	1971	1972	1973	1974	1975	1976	1977	1978
Sanilac	3,214	3,363	3,801	4,072	4,608	4,602	4,976	5,612	6,366
Schoolcraft	2,758	2,851	3,138	3,353	3,844	4,370	4,628	5,035	5,455
Shiawassee	3,560	3,858	4,329	4,730	5,041	5,348	5,954	6,737	7,469
Tuscola	3,281	3,581	3,980	4,515	5,155	5,034	5,655	6,452	7,214
Van Buren	3,299	3,467	3,780	4,233	4,690	4,836	5,334	5,872	6,761
Washtenaw	4,136	4,599	4,998	5,589	5,735	6,428	7,238	8,210	9,160
Wayne	4,387	4,691	5,165	5,810	6,212	6,413	7,280	8,218	9,238
Wexford	2,884	3,143	3,378	3,860	4,281	4,570	5,174	5,756	6,281
Michigan	4,041	4,371	4,804	5,341	5,687	6,008	6,760	7,601	8,487
Standard metropolitan statistical areas									
Ann Arbor	4,136	4,599	4,998	5,589	5,735	6,428	7,238	8,210	9,160
Battle Creek	3,792	4,170	4,547	4,992	5,320	5,815	6,499	7,063	7,791
Bay City	3,536	3,904	4,137	4,609	5,097	5,408	6,135	6,927	7,581
Detroit	4,490	4,824	5,326	5,962	6,333	6,608	7,497	8,488	9,512
Flint	3,740	4,369	4,756	5,274	5,376	5,865	7,001	8,049	8,807
Grand Rapids	3,876	4,155	4,587	5,007	5,426	5,701	6,230	6,961	7,885
Jackson	4,002	4,132	4,598	5,136	5,437	5,807	6,260	6,859	7,656
Kalamazoo-Portage	3,863	4,105	4,397	4,936	5,436	5,883	6,451	7,144	7,914
Lansing-E. Lansing	3,672	4,154	4,538	[illegible],006	5,187	5,697	6,428	7,239	7,990
Muskegon-Muskegon Hgts-Norton Shores	3,470	3,536	3,936	4,268	4,755	5,038	5,480	5,984	6,755
Saginaw	3,647	4,222	4,615	5,161	5,415	5,736	6,663	7,604	8,407

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, special release.

TABLE VI-8. PERCENTAGE CHANGE IN PER CAPITA PERSONAL INCOME, 1973-1978 AND 1977-1978, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA PERSONAL INCOME: 1978

County	Per capita personal income	Percentage change 1973 to 1978	Percentage change 1977 to 1978	County	Per capita personal income	Percentage change 1973 to 1977	Percentage change 1977 to 1978
Oakland	10,877	58	11	Luce	6,368	63	6
Macomb	9,385	62	12	Sanilac	6,366	56	13
Wayne	9,238	59	12	Wexford	6,281	63	9
Washtenaw	9,160	64	12	Antrim	6,251	65	15
Genesee	9,016	68	9	Benzie	6,238	56	14
Midland	8,542	66	9	Manistee	6,194	75	11
Ingham	8,516	62	10	Ionia	6,190	58	14
Saginaw	8,407	63	11	Mason	6,112	72	16
Kalamazoo	8,259	60	10	Arenac	6,025	61	10
Calhoun	8,217	58	10	Gogebic	6,020	56	13
Kent	7,980	57	13	Mackinac	5,968	60	6
Grand Traverse	7,965	65	15	Menominee	5,931	65	13
Eaton	7,776	56	8	Cheboygan	5,863	63	14
Monroe	7,721	56	9	Delta	5,857	55	8
Lenawee	7,667	56	9	Baraga	5,785	58	11
Jackson	7,656	49	12	Oceana	5,708	60	17
Ottawa	7,609	59	14	Presque Isle	5,700	73	14
Bay	7,581	64	9	Iron	5,686	63	8
Berrien	7,570	50	13	Newaygo	5,656	49	12
Livingston	7,536	58	11	Iosco	5,571	43	7
Cass	7,489	54	14	Isabella	5,565	58	13
Shiawassee	7,469	58	11	Montmorency	5,472	61	11
Dickinson	7,341	69	10	Crawford	5,465	60	10
Clinton	7,341	53	13	Schoolcraft	5,455	63	8
Branch	7,336	69	10	Keweenaw	5,446	64	18
St. Clair	7,287	60	12	Gladwin	5,442	58	11
St. Joseph	7,276	50	10	Houghton	5,306	61	10
Lapeer	7,216	58	11	Roscommon	5,210	57	8
Tuscola	7,214	60	12	Clare	5,195	58	8
Emmet	7,144	63	13	Alcona	5,156	62	8
Huron	7,054	57	17	Osceola	5,121	41	12
Gratiot	6,965	51	10	Chippewa	4,999	39	13
Muskegon	6,894	58	12	Ontonagon	4,992	35	6
Leelanau	6,825	62	14	Kalkaska	4,921	78	6
Van Buren	6,761	60	15	Missaukee	4,879	41	15
Allegan	6,748	64	17	Lake	4,812	46	12
Marquette	6,747	65	16	Alger	4,779	48	8
Hillsdale	6,717	52	10	Ogemaw	4,754	51	3
Otsego	6,595	68	14	Mecosta	4,551	61	13
Alpena	6,485	65	14	Oscoda	4,383	58	7
Charlevoix	6,465	65	15				
Montcalm	6,412	60	14	Michigan	8,487	59	12
Barry	6,395	50	13	United States	7,840	57	11

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-9. DIVIDENDS, INTEREST, AND RENT PER CAPITA, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO DIVIDENDS, INTEREST, AND RENT AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1978

County	Percent-age	Per capita	County	Percent-age	Per capita
Roscommon	26.0	$ 1,355	Osceola	13.0	$ 650
Leelanau	22.5	1,535	St. Clair	13.0	923
Montmorency	22.1	1,215	Lenawee	13.0	965
Alcona	22.0	1,131	Newaygo	13.0	711
Oscoda	20.2	878	Gladwin	13.0	685
Benzie	19.6	1,217	Barry	12.3	789
Emmet	19.5	1,391	Mecosta	12.3	561
Antrim	18.6	1,166	Hillsdale	12.3	825
Lake	18.6	893	Kent	12.3	980
Crawford	18.4	1,006	Bay	12.2	925
Huron	18.0	1,273	Branch	12.0	877
Ogemaw	17.4	828	Allegan	11.9	804
Cheboygan	16.9	990	Ottawa	11.9	904
Houghton	16.6	878	Alpena	11.9	767
Keweenaw	16.5	907	Washtenaw	11.8	1,080
Sanilac	16.0	1,022	Baraga	11.7	676
Otsego	15.4	1,021	Isabella	11.6	646
Missaukee	15.4	750	Jackson	11.6	886
Grand Traverse	15.4	1,230	Gratiot	11.4	797
Charlevoix	15.4	993	Tuscola	11.4	825
Iosco	15.2	844	Montcalm	11.2	716
Presque Isle	15.0	855	Van Buren	11.1	751
Manistee	14.9	923	Cass	11.1	831
Mackinac	14.9	888	Livingston	11.1	835
Arenac	14.9	896	Calhoun	11.0	904
Midland	14.6	1,244	Eaton	11.0	854
Oakland	14.5	1,578	Ontonagon	11.0	547
Clare	14.5	754	Saginaw	10.8	905
Mason	14.5	886	Ionia	10.6	655
Gogebic	14.4	865	Monroe	10.5	814
Schoolcraft	14.3	779	Muskegon	10.2	706
Iron	14.2	807	Clinton	10.2	748
Oceana	13.8	791	Ingham	10.1	862
Chippewa	13.6	681	Shiawassee	10.0	749
Wexford	13.5	850	Lapeer	9.6	693
Delta	13.3	782	Marquette	9.5	644
Dickinson	13.2	971	Macomb	9.5	893
Kalkaska	13.3	657	Wayne	9.3	857
Berrien	13.0	982	Genesee	9.2	825
Alger	13.0	621	Luce	8.8	565
St. Joseph	13.0	942			
Kalamazoo	13.0	1,064	Michigan	11.3	958
Menominee	13.0	759	United States	13.8	1,084

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-10. GROWTH IN TOTAL PERSONAL INCOME, 1973-1978, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN TOTAL PERSONAL INCOME: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Livingston	110	19	Osceola	55	12
Missaukee	71	18	Muskegon	59	12
Leelanau	80	18	Hillsdale	60	12
Antrim	90	17	Emmet	74	12
Allegan	73	17	Eaton	73	12
Oceana	72	17	Clare	94	12
Marquette	79	17	Cheboygan	73	12
Montmorency	97	17	Branch	69	12
Huron	59	17	Alger	72	11
Grand Traverse	84	17	Alcona	81	11
Newaygo	66	16	Wexford	74	11
Ottawa	73	16	Wayne	46	11
Sanilac	66	16	St. Joseph	56	11
Barry	62	15	Saginaw	64	11
Van Buren	66	15	Roscommon	97	11
Montcalm	72	15	Oscoda	86	11
Menominee	74	15	Monroe	66	11
Lapeer	85	15	Keweenaw	63	11
Isabella	71	15	Kalkaska	153	11
Ionia	66	15	Kalamazoo	67	11
Gladwin	88	15	Ingham	64	11
Clinton	67	15	Berrien	48	11
Baraga	71	14	Calhoun	56	10
Alpena	71	14	Bay	67	10
Presque Isle	77	14	Arenac	77	10
Otsego	94	14	Mackinac	74	10
Oakland	69	14	Lenawee	60	10
Mason	71	14	Lake	56	10
Manistee	86	14	Houghton	66	10
Kent	63	14	Gogebic	47	10
Charlevoix	78	14	Genesee	68	10
Benzie	76	14	Crawford	92	10
Washtenaw	72	13	Midland	75	9
Tuscola	70	13	Iron	74	9
St. Clair	67	13	Iosco	56	9
Ogemaw	87	13	Gratiot	47	9
Mecosta	72	13	Delta	65	9
Macomb	72	13	Luce	75	7
Jackson	55	13	Ontonagon	29	4
Dickinson	81	13	Chippewa	22	-4
Cass	57	13			
Shiawassee	65	12	Michigan	61	12
Schoolcraft	77	12	United States	64	12

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-11. GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED, 1973-1978, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Missaukee	54	33	Dickinson	80	14
Oceana	71	25	Jackson	47	14
Leelanau	52	25	St. Clair	58	14
Montmorency	68	24	Mackinac	70	13
Antrim	59	23	Ingham	62	13
Huron	44	22	Oscoda	70	13
Clinton	51	20	Muskegon	54	13
Ionia	64	20	Tuscola	50	13
Grand Traverse	88	20	Kalamazoo	66	12
Marquette	77	20	Saginaw	63	12
Allegan	57	20	St. Joseph	44	12
Van Buren	46	19	Wexford	64	12
Ottawa	75	19	Alger	56	12
Cass	57	18	Eaton	51	12
Washtenaw	81	18	Montcalm	56	12
Benzie	63	18	Genesee	71	11
Baraga	60	18	Kalkaska	225	11
Sanilac	48	18	Roscommon	73	11
Livingston	85	18	Wayne	42	11
Clare	68	17	Midland	83	10
Charlevoix	75	17	Houghton	58	10
Isabella	66	17	Calhoun	51	10
Kent	62	17	Berrien	38	10
Cheboygan	61	16	Alcona	53	10
Menominee	65	16	Gogebic	33	9
Macomb	67	16	Bay	56	9
Ogemaw	76	16	Monroe	51	9
Manistee	83	16	Schoolcraft	66	9
Oakland	79	16	Luce	69	9
Otsego	99	16	Delta	56	9
Alpena	60	16	Iosco	38	9
Mecosta	57	15	Crawford	83	8
Mason	55	15	Lake	9	8
Presque Isle	62	15	Gratiot	42	8
Gladwin	51	15	Iron	57	8
Lapeer	65	15	Lenawee	33	7
Barry	51	15	Shiawassee	40	7
Newaygo	50	15	Ontonagon	-5	5
Keweenaw	35	14	Arenac	66	2
Branch	67	14	Chippewa	22	-4
Emmet	61	14			
Hillsdale	54	14	Michigan	56	13
Osceola	31	14	United States	58	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-12. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1978

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county in which received	Percentage[a]
Clinton	108,881	218,204	327,085	66.7
Livingston	231,468	332,046	563,514	58.9
Shiawassee	207,178	203,772	410,950	49.6
Lapeer	205,288	181,475	386,763	46.9
Eaton	173,613	334,810	508,423	46.2
Gladwin	35,243	29,575	64,818	45.6
Monroe	440,480	369,696	810,176	45.6
Leelanau	32,085	24,919	57,004	43.7
Barry	119,334	85,915	205,249	41.9
Cass	158,521	102,849	261,370	39.3
Tuscola	184,525	117,987	302,512	39.0
Oceana	50,901	28,847	79,748	36.2
Allegan	243,934	127,943	371,877	34.4
Arenac	34,277	17,196	51,473	33.4
Newaygo	88,090	43,669	131,759	33.1
Van Buren	200,633	98,696	299,329	33.0
Clare	52,103	22,210	74,313	29.9
Alcona	15,880	6,615	22,495	29.4
Missaukee	20,893	8,525	29,418	29.0
Lake	11,508	4,204	15,712	26.8
St. Clair	533,492	181,366	714,858	25.4
Keweenaw	4,924	1,430	6,354	22.5
Ionia	177,601	49,940	227,541	21.9
Bay	553,567	147,265	700,832	21.0
Macomb	4,250,341	1,131,351	5,381,692	21.0
Antrim	50,093	13,258	63,351	20.9
Hillsdale	166,309	38,353	204,662	18.7
Sanilac	140,801	31,220	172,021	18.1
Gogebic	54,500	11,942	66,442	18.0
Iron	41,314	9,021	50,335	17.9
Lenawee	424,206	82,498	506,704	16.3
Ottawa	750,007	146,386	896,393	16.3
Montcalm	174,195	33,592	207,787	16.2
Menominee	92,500	17,861	110,361	16.2
Oakland	7,277,453	1,295,116	8,572,569	15.1

TABLE VI-12. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1978 (cont.)

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county which received	Percentage[a]
Benzie	33,624	5,636	39,260	14.4
Gratiot	181,555	23,608	205,163	11.5
Alger	27,769	2,889	30,658	9.4
Isabella	195,863	19,611	215,474	9.1
Mecosta	96,692	9,412	106,104	8.9
Baraga	30,596	2,385	32,981	7.2
St. Joseph	257,107	20,054	277,161	7.2
Huron	156,998	11,313	168,311	6.7
Montmorency	19,261	1,141	20,402	5.6
Crawford	28,507	1,494	30,001	5.0
Branch	203,040	9,939	212,979	4.7
Oscoda	13,966	694	14,660	4.7
Presque Isle	49,460	2,393	51,853	4.6
Charlevoix	80,666	3,495	84,161	4.2
Osceola	57,306	2,480	59,786	4.1
Kalkaska	36,908	1,260	38,168	3.3
Ogemaw	43,149	1,418	44,567	3.2
Jackson	855,654	28,607	884,261	3.2
Houghton	111,598	3,448	115,046	3.0
Cheboygan	68,387	1,766	70,153	2.5
Mackina	43,663	563	44,226	1.3
Chippewa	89,334	902	90,236	1.0
Mason	101,891	555	102,446	.5
Schoolcraft	30,368	11	30,379	0
Manistee	91,423	- 139	91,284	- .2
Berrien	939,515	-10,401	929,114	- 1.1
Iosco	112,002	- 1,224	110,778	- 1.1
Delta	157,769	- 1,933	155,836	- 1.2
Alpena	154,172	- 2,283	151,889	- 1.5
Marquette	392,880	- 9,598	383,282	- 2.4
Muskegon	844,278	-27,284	816,994	- 3.2
Roscommon	36,714	- 1,276	35,438	- 3.5
Dickinson	141,366	- 7,256	134,110	- 5.1
Luce	34,607	- 1,764	32,843	- 5.1
Calhoun	923,453	-49,221	874,232	- 5.3

TABLE VI-12. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1978 (cont.)

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county which received	Percentage[a]
Emmet	105,764	- 7,631	98,133	- 7.2
Otsego	70,456	- 5,181	65,275	- 7.4
Kalamazoo	1,422,746	-109,205	1,313,541	- 7.7
Saginaw	1,646,642	-146,226	1,500,416	- 8.9
Kent	2,980,097	-323,357	2,656,740	-10.9
Genesee	3,695,224	-417,051	3,278,173	-11.3
Grand Traverse	308,391	- 36,096	272,295	-11.7
Wexford	107,853	- 13,141	94,712	-12.2
Wayne	20,048,469	-2,836,079	17,212,390	-14.1
Midland	568,973	-110,766	458,207	-19.5
Washtenaw	2,344,501	-500,756	1,843,745	-21.4
Ingham	2,467,000	-665,178	1,801,822	-27.0
Ontonagon	48,540	- 16,656	31,884	-34.3
Michigan	59,762,335	405,124	60,167,459	.7
United States	1,249,594,000	-411,000	1,249,183,000	0

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Residence adjustment as percentage of labor and proprietors' earnings received (where positive) or generated (where negative).

TABLE VI-13. RANKING OF MICHIGAN COUNTIES ACCORDING TO NONFARM PROPRIETORS' EARNINGS AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1978

County	Percentage 1977	Percentage 1978	County	Percentage 1977	Percentage 1978
Lake	24.56	25.17	Isabella	8.40	7.90
Alcona	22.40	22.62	Houghton	7.68	7.76
Oscoda	18.30	17.87	Kalkaska	7.68	7.60
Montmorency	19.23	17.19	Manistee	7.96	7.56
Gladwin	16.75	15.96	Oakland	7.97	7.52
Roscommon	15.25	15.12	Cass	7.91	7.39
Clare	15.69	14.68	Montcalm	7.53	7.38
Iron	13.82	14.33	Van Buren	7.98	7.37
Missaukee	17.11	14.07	Iosco	7.29	7.33
Leelanau	15.55	13.66	Monroe	7.18	7.23
Alger	13.54	13.60	Mason	7.54	7.17
Mackinac	13.91	13.45	St. Clair	7.34	7.09
Gogebic	11.54	11.79	Dickinson	7.34	7.07
Schoolcraft	11.42	11.50	Ionia	7.62	6.97
Chippewa	8.85	11.08	Lapeer	7.26	6.90
Benzie	11.82	11.01	Hillsdale	7.07	6.83
Keweenaw	11.39	10.96	Ottawa	7.33	6.78
Presque Isle	11.35	10.88	Luce	6.67	6.76
Newaygo	11.40	10.87	Bay	6.58	6.65
Cheboygan	11.36	10.75	Grand Traverse	7.17	6.57
Clinton	11.47	10.54	Alpena	6.70	6.49
Ogemaw	10.85	10.40	Gratiot	6.04	6.12
Eaton	10.61	10.40	Lenawee	5.93	6.05
Crawford	10.25	10.37	Branch	6.06	5.88
Oceana	11.59	10.11	Berrien	5.90	5.86
Osceola	10.45	10.07	Kent	6.03	5.70
Baraga	10.48	9.88	St. Joseph	5.77	5.64
Barry	10.26	9.81	Ontonagon	5.13	5.46
Livingston	10.55	9.79	Muskegon	5.06	4.93
Arenac	8.59	9.28	Kalamazoo	4.71	4.64
Otsego	9.27	8.80	Jackson	4.72	4.54
Sanilac	9.43	8.76	Macomb	4.61	4.36
Tuscola	9.00	8.73	Calhoun	4.31	4.31
Wexford	8.83	8.70	Saginaw	4.07	3.98
Menominee	8.96	8.69	Marquette	4.26	3.91
Antrim	9.51	8.49	Ingham	3.56	3.47
Charlevoix	9.03	8.49	Wayne	2.98	2.96
Huron	9.15	8.28	Washtenaw	3.14	2.93
Delta	8.12	8.16	Midland	2.88	2.89
Allegan	8.91	8.16	Genesee	2.87	2.84
Mecosta	8.37	8.04			
Shiawassee	7.83	8.02	Michigan	4.85	4.71
Emmet	8.28	7.99	United States	6.90	6.76

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-14. PER CAPITA MONEY INCOME IN MICHIGAN BY COUNTY: 1969 AND 1977

County	1969	1977	County	1969	1977
Alcona	2,172	3,829	Keweenaw	1,887	3,389
Alger	2,276	4,171	Lake	2,067	3,396
Allegan	2,649	4,823	Lapeer	2,705	5,102
Alpena	2,552	4,725	Leelanau	2,588	4,890
Antrim	2,462	4,346	Lenawee	2,947	5,273
Arenac	2,467	4,476	Livingston	3,320	6,056
Baraga	2,600	4,760	Luce	2,314	4,103
Barry	2,849	5,020	Mackinac	2,259	4,061
Bay	3,048	5,806	Macomb	3,596	6,661
Benzie	2,450	4,294	Manistee	2,616	4,664
Berrien	3,031	5,268	Marquette	2,521	4,682
Branch	2,647	4,743	Mason	2,651	4,619
Calhoun	3,309	5,947	Mecosta	2,483	4,219
Cass	2,918	4,995	Menominee	2,308	4,313
Charlevoix	2,543	4,625	Midland	3,460	6,340
Cheboygan	2,435	4,181	Missaukee	2,058	3,605
Chippewa	2,217	4,049	Monroe	3,208	6,016
Clare	2,367	4,138	Montcalm	2,601	4,479
Clinton	3,019	5,379	Montmorency	2,112	3,429
Crawford	2,507	4,153	Muskegon	2,873	5,155
Delta	2,528	4,650	Newaygo	2,537	4,397
Dickinson	2,513	4,901	Oakland	4,496	8,284
Eaton	3,332	6,232	Oceana	2,403	4,118
Emmet	2,703	4,879	Ogemaw	2,250	3,958
Genesee	3,303	6,552	Ontonagon	2,342	3,976
Gladwin	2,449	4,264	Osceola	2,406	4,119
Gogebic	2,230	3,976	Oscoda	2,469	4,522
Grand Traverse	2,853	5,100	Otsego	2,794	5,079
Gratiot	2,649	4,857	Ottawa	3,002	5,456
Hillsdale	2,650	4,746	Presque Isle	2,338	4,385
Houghton	2,104	3,821	Roscommon	2,566	3,923
Huron	2,375	4,364	Saginaw	3,130	6,103
Ingham	3,406	6,183	St. Clair	3,019	5,427
Ionia	2,623	4,692	St. Joseph	3,010	5,103
Iosco	2,295	4,045	Sanilac	2,508	4,423
Iron	2,374	4,416	Schoolcraft	2,274	4,275
Isabella	2,422	4,391	Shiawassee	3,020	5,518
Jackson	3,198	5,639	Tuscola	2,663	5,052
Kalamazoo	3,355	6,067	Van Buren	2,681	4,792
Kalkaska	2,141	3,759	Washtenaw	3,761	6,581
Kent	3,265	5,863	Wayne	3,485	6,394
			Wexford	2,438	4,426
			Michigan	3,354	6,130

SOURCE: Bureau of the Census, Current Popoulation Reports, Series P-25. no. 761 (Washington, D.C.: 1979), Table 1; and Bureau of the Census, special release.

NOTE: Figures pertain to the 1969 and 1977 incomes of persons in April 1970 and 1978, respectively.

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Addison	$3,811	$ 7,034	Berkley	$ 3,842	$ 6,882
Adrian	2,889	5,071	Berrien Springs	3,077	5,017
Ahmeek	1,974	3,647	Bessemer	2,208	4,094
Akron	2,525	4,965	Beulah	3,364	5,717
Alanson	3,301	5,843	Beverly Hills	7,279	12,989
Albion	2,590	4,474	Big Rapids	2,517	4,213
Algonac	3,216	5,930	Bingham Farms	8,983	20,279
Allegan	2,912	4,850	Birch Run	3,091	5,736
Allen	2,744	4,300	Birmingham	6,141	11,501
Allen Park	4,170	7,936	Blissfield	3,155	5,711
Alma	2,794	4,795	Bloomfield Hills	20,400	38,371
Almont	3,206	5,942	Bloomingdale	2,459	4,120
Alpena	2,768	5,135	Boyne City	2,611	4,538
Alpha	2,396	4,394	Boyne Falls	2,039	4,034
Ann Arbor	3,956	6,869	Breckenridge	3,013	5,239
Applegate	2,487	4,345	Breedsville	3,127	5,843
Armada	3,144	5,661	Bridgman	3,299	5,497
Ashley	2,605	4,828	Brighton	3,331	6,061
Athens	5,229	9,662	Britton	2,956	5,413
Auburn	3,024	5,753	Bronson	2,804	5,137
Au Gres	2,637	4,549	Brooklyn	2,732	5,106
Augusta	3,601	6,277	Brown City	2,213	4,017
Bad Axe	2,977	5,012	Buchanan	3,383	5,525
Baldwin	2,706	4,246	Buckley	2,272	4,224
Bancroft	2,903	5,676	Burlington	2,296	3,902
Bangor	3,212	5,789	Burr Oak	2,847	4,729
Baraga	2,606	4,735	Burton	3,244	6,346
Baroda	3,172	5,656	Byron	2,726	5,296
Barryton	2,669	4,029	Cadillac	2,627	4,762
Barton Hills	8,488	16,723	Caledonia	3 035	5,620
Battle Creek	3,147	5,711	Calumet	2,230	4,328
Bay City	3,052	5,870	Camden	2,675	4,661
Bear Lake	2,690	5,006	Capac	2,871	5,564
Beaverton	2,615	4,210	Carleton	3,697	7,490
Belding	2,810	4,838	Caro	3,122	5,401
Bellaire	2,700	4,640	Carson City	2,271	3,601
Belleville	4,114	7,514	Carsonville	2,734	4,884
Bellevue	3,163	5,512	Caseville	3,020	5,190
Benton Harbor	2,163	3,799	Casnovia	2,584	4,615
Benzonia	2,827	5,235	Caspian	2,031	3,774

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Cass City	$ 3,190	$ 5,467	Dearborn Heights	$ 3,903	$ 7,215
Cassopolis	2,643	4,499	Decatur	2,395	4,299
Cedar Springs	2,913	5,167	Deckerville	2,491	4,686
Cement City	2,579	5,189	Deerfield	3,307	6,750
Center Line	3,666	6,522	De Tour	2,051	3,657
Central Lake	2,317	4,318	Detroit	3,209	5,689
Centreville	2,488	4,184	De Witt	3,183	5,789
Charlevoix	2,777	5,218	Dexter	3,388	6,778
Charlotte	3,165	5,779	Dimondale	3,085	5,967
Chatham	2,263	3,887	Douglas	2,823	5,280
Cheboygan	2,570	4,472	Dowagiac	2,886	5,000
Chelsea	3,129	6,702	Dryden	2,738	5,383
Chesaning	2,814	5,458	Dundee	3,302	6,082
Clare	3,151	5,781	Durand	3,107	5,824
Clarkston	4,570	8,256	Eagle	2,850	5,065
Clarksville	2,550	4,866	East Detroit	3,661	6,637
Clawson	3,458	6,692	East Grand Rapids	6,730	11,273
Clayton	2,027	4,008	East Jordon	2,609	4,432
Clifford	2,225	3,883	East Lake	3,030	5,474
Climax	3,304	5,962	East Lansing	3,304	5,979
Clinton	3,908	7,108	East Tawas	2,675	4,560
Clio	3,273	6,543	Eaton Rapids	3,132	5,985
Coldwater	2,956	5,359	Eau Claire	2,849	5,057
Coleman	2,516	4,648	Ecorse	2,832	5,367
Coloma	2,878	5,040	Edmore	2,639	4,454
Colon	3,200	5,572	Edwardsburg	3,261	5,894
Columbiaville	2,378	4,459	Elberta	2,398	3,662
Concord	2,827	4,891	Elk Rapids	2,552	4,363
Constantine	2,433	3,758	Elkton	2,485	4,177
Coopersville	2,726	5,029	Ellsworth	2,502	4,720
Copemish	2,120	3,470	Elsie	2,806	4,768
Copper City	1,433	2,752	Emmett	2,624	4,732
Corunna	3,052	5,682	Empire	2,281	5,070
Croswell	2,560	4,375	Escanaba	2,833	5,261
Crystal Falls	2,600	4,553	Essexville	3,709	7,100
Custer	2,389	3,703	Estral Beach	3,386	6,837
Daggett	2,001	4,027	Evart	2,445	4,049
Dansville	2,333	4,470	Fairgrove	2,763	5,241
Davison	3,698	7,259	Farmington	5,034	9 364
Dearborn	4,383	8,230	Farmington Hills	4,989	9,655

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Farwell	$ 2,065	$ 3,696	Grant	$ 2,838	$ 4,826
Fenneville	2,666	4,937	Grass Lake	3,057	5,883
Fenton	3,376	6,402	Grayling	2,786	4,573
Ferndale	3,787	6,635	Greenville	3,113	5,176
Ferrysburg	3,375	6,103	Grosse Pointe	7,517	14,277
Fife Lake	2,315	3,931	Grosse Pte. Farms	9,002	15,790
Flat Rock	3,662	6,795	Grosse Pte. Park	6,676	12,506
Flint	3,211	6,352	Grosse Pte. Shores	12,270	22,304
Flushing	3,870	7,608	Grosse Pte. Woods	6,072	10,095
Forestville	2,509	4,327	Hamtramck	3,247	5,922
Fountain	3,027	5,437	Hancock	2,265	4,066
Fowler	2,659	4,904	Hanover	3,271	5,599
Fowlerville	2,946	4,899	Harbor Beach	2,560	4,552
Frankenmuth	4,150	7,933	Harbor Springs	2,508	4,818
Frankfort	2,606	4,802	Harper Woods	4,364	7,945
Franklin	8,995	15,238	Harrietta	1,532	2,856
Fraser	3,496	6,422	Harrison	2,540	4,436
Freeport	2,267	4,089	Harrisville	2,428	4,325
Freesoil	2,188	3,543	Hart	2,399	3,803
Fremont	3,266	4,965	Hartford	2,391	4,087
Fruitport	3,279	5,868	Hastings	3,288	5,513
Gaastra	2,444	4,945	Hazel Park	3,279	5,776
Gagetown	2,495	4,351	Hersey	2,731	5,036
Gaines	4,030	8,431	Hesperia	2,977	4,940
Galesburg	2,968	5,195	Highland Park	3,028	5,459
Galien	2,757	4,997	Hillman	2,184	3,415
Garden	2,587	4,826	Hillsdale	3,008	5,162
Garden City	3,203	6,234	Holland	3,219	5,582
Gaylord	2,819	4,975	Holly	3,026	5,663
Gibralter	3,532	6,903	Homer	2,788	4,899
Gladstone	2,409	4,627	Honor	2,498	3,924
Gladwin	3,149	5,545	Hopkins	2,491	4,615
Gobles	2,938	5,128	Houghton	2,390	4,206
Goodrich	3,479	6,903	Howard City	2,102	3,824
Grand Beach	4,086	7,031	Howell	3,678	6,689
Grand Blanc	4,975	9,761	Hubbardston	2,689	4,947
Grand Haven	3,288	5,931	Hudson	3,025	5,220
Grand Ledge	3,397	6,520	Hudsonville	2,808	5,091
Grand Rapids	3,180	5,627	Huntington Woods	6,811	11,658
Grandville	3,265	6,299	Imlay City	2,985	5,648

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Inkster	$ 3,045	$ 5,740	Lincoln	$ 2,287	$ 3,877
Ionia	3,036	5,213	Lincoln Park	3,635	6,864
Iron Mountain	2,773	5,461	Linden	4,086	8,523
Iron River	2,370	4,314	Litchfield	2,502	4,110
Ironwood	2,278	4,143	Livonia	3,942	7,558
Ishpeming	2,656	5,070	Lowell	2,944	5,355
Ithaca	3,088	5,553	Ludington	2,947	5,051
Jackson	3,135	5,647	Luna Pier	2,539	4,480
Jonesville	3,139	5,413	Luther	2,027	3,213
Kalamazoo	3,240	5,756	Lyons	2,438	4,485
Kaleva	2,601	4,510	McBain	2,231	4,021
Kalkaska	2,087	3,567	McBride	2,846	4,900
Keego Harbor	3,567	6,635	Mackinac Island	2,252	3,980
Kent City	2,220	3,839	Mackinaw City	2,617	4,397
Kentwood	3,279	5,721	Madison Heights	3,523	6,430
Kinde	2,869	4,592	Mancelona	2,608	4,668
Kingsford	2,451	5,047	Manchester	3,858	8,091
Kingsley	2,365	4,317	Manistee	2,854	4,995
Kingston	2,695	5,056	Manistique	2,508	4,709
Laingsburg	2,209	4,134	Manton	2,106	3,571
Lake Angelus	6,055	12,575	Maple Rapids	2,513	4,564
Lake Ann	2,600	4,364	Marcellus	2,678	4,578
Lake City	2,551	4,307	Marine City	3,094	5,496
Lake Linden	1,726	3,266	Marion	2,327	4,133
Lake Odessa	2,945	5,647	Marlette	3,143	5,170
Lake Orion	3,506	6,035	Marquette	2,655	4,956
Lakeview	3,046	4,869	Marshall	3,455	6,399
Lakewood Club	2,627	4,715	Martin	2,868	6,003
L'Anse	2,814	5,312	Marysville	3,383	6,188
Lansing	3,368	6,081	Mason	3,259	6,247
Lapeer	2,987	5,655	Mattawan	2,949	5,640
Lathrup Village	7,171	11,818	Maybee	3,132	6,197
Laurium	2,162	4,207	Mayville	3,004	5,208
Lawrence	2,780	5,464	Mecosta	2,216	3,796
Lawton	2,502	4,632	Melvin	2,511	4,430
Lennon	3,014	5,845	Melvindale	3,571	6,716
Leonard	3,567	6,946	Memphis	2,798	5,241
Le Roy	2,524	4,584	Mendon	2,906	4,581
Leslie	3,003	5,494	Menominee	2,622	4,981
Lexington	2,664	4,736	Merrill	2,584	4,570

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Mesick	$ 2,676	$ 4,584	Northville	$ 4,229	$ 8,264
Metamora	3,129	5,502	Norton Shores	3,430	6,124
Michiana	3,126	5,393	Norway	2,239	4,376
Middleville	2,958	5,417	Novi	3,785	7,409
Midland	4,095	7,409	Oakley	2,318	4,226
Milan	3,150	5,911	Oak Park	4,684	7,691
Milford	3,437	5,996	Olivet	2,386	4,408
Millersburg	2,224	4,266	Omer	2,404	3,985
Millington	2,942	5,242	Onaway	1,999	3,668
Minden City	2,292	4,045	Onekama	2,880	4,438
Mineral Hills	2,440	4,668	Onsted	2,785	5,134
Monroe	3,562	6,665	Ontonagon	2,614	4,504
Montague	2,702	4,772	Orchard Lake Village	6,823	12,603
Montgomery	2,308	3,783	Ortonville	2,874	6,195
Montrose	2,903	6,074	Otisville	3,172	6,581
Morenci	2,912	4,902	Otsego	2,721	5,101
Morley	2,476	3,922	Otter Lake	2,455	4,798
Morrice	2,611	4,686	Ovid	2,908	5,429
Mount Clemens	3,579	6,707	Owendale	3,015	4,804
Mount Morris	3,168	6,251	Owosso	3,284	5,641
Mount Pleasant	2,398	4,380	Oxford	2,986	5,602
Muir	2,532	4,353	Parchment	4,232	7,291
Mulliken	2,835	5,570	Parma	3,193	5,918
Munising	2,579	4,695	Paw Paw	3,106	5,348
Muskegon	2,869	5,191	Peck	2,508	4,413
Muskegon Heights	2,303	4,265	Pellston	2,064	3,242
Nashville	2,905	4,818	Pentwater	2,336	4,336
Negaunee	2,645	4,864	Perrinton	2,339	4,874
Newaygo	2,429	4,204	Perry	2,792	4,922
New Baltimore	3,479	6,331	Petersburg	2,905	5,507
Newberry	3,040	5,345	Petoskey	3,012	5,563
New Buffalo	2,859	5,130	Pewamo	2,911	5,706
New Era	3,680	6,291	Pierson	2,343	4,063
New Haven	2,851	5,481	Pigeon	2,396	4,801
New Lothrop	3,003	6,127	Pinckney	3,065	5,553
Niles	3,448	6,071	Pinconning	2,658	5,121
North Adams	2,389	4,188	Plainwell	2,979	5,296
North Branch	2,792	5,753	Pleasant Ridge	5,418	9,353
North Muskegon	4,806	8,098	Plymouth	4,146	7,611
Northport	2,599	5,192	Pontia	2,851	5,341

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Portage	$ 3,477	$ 6,460	Saline	$ 3,665	$ 6,765
Port Austin	2,153	4,040	Sand Lake	3,106	5,928
Port Hope	2,389	4,413	Sandusky	2,625	4,174
Port Huron	3,008	5,275	Sanford	2,880	5,365
Portland	2,984	5,359	Saranac	2,943	4,776
Port Sanilac	2,954	6,027	Saugatuck	3,117	6,157
Posen	2,202	3,940	Sault Ste. Marie	2,430	4,390
Potterville	2,799	5,106	Schoolcraft	3,096	5,405
Powers	1,934	3,847	Scottville	3,014	4,602
Prescott	2,136	3,526	Sebewaing	2,604	4,641
Quincy	3,257	5,531	Shelby	2,624	4,358
Ravenna	2,864	4,950	Shepherd	2,798	4,908
Reading	2,470	4,579	Sheridan	2,728	4,498
Reed City	2,911	4,930	Sherwood	2,291	4,688
Reese	3,159	6,117	Shoreham	4,282	7,428
Richland	3,536	6,056	Southfield	5,926	10,439
Richmond	2,800	5,439	Southgate	3,606	7,184
River Rouge	2,919	5,464	South Haven	2,922	5,147
Riverview	3,632	7,417	South Lyon	3,277	6,044
Rochester	4,244	7,870	South Range	2,162	4,123
Rockford	3,131	5,680	South Rockwood	2,852	5,695
Rockwood	3,415	6,735	Sparta	2,802	4,978
Rogers City	2,857	5,574	Springfield	3,121	5,903
Romeo	3,234	6,442	Spring Lake	4,181	7,933
Romulus	3,115	5,878	Springport	2,660	5,143
Roosevelt Park	3,774	6,752	Stambaugh	2,421	4,576
Roscommon	2,932	4,273	Standish	3,285	5,711
Rosebush	2,038	3,782	Stanton	2,919	4,966
Rose City	2,606	4,315	Stanwood	2,100	3,445
Roseville	3,270	6,075	Stephenson	2,450	4,585
Rothbury	2,978	5,663	Sterling	2,434	4,301
Royal Oak	4,266	7,802	Sterling Heights	3,714	6,819
Saginaw	2,994	5,696	Stevensville	3,150	5,497
St. Charles	2,852	5,704	Stockbridge	2,985	5,539
St. Clair	3,775	6,844	Sturgis	3,420	5,723
St. Clair Shores	3,773	7,039	Sunfield	2,415	5,096
St. Ignace	2,376	4,166	Suttons Bay	2,814	5,405
St. Johns	3,292	5,716	Swartz Creek	3,309	6,717
St. Joseph	3,882	7,134	Sylvan Lake	4,934	9,851
St. Louis	2,724	5,062	Tawas City	2,393	4,311

TABLE VI-15. PER CAPITA MONEY INCOME IN MICHIGAN INCORPORATED PLACES: 1969 AND 1977 (cont.)

Place	Income 1969	Income 1977	Place	Income 1969	Income 1977
Taylor	$ 3,196	$ 5,971	Walkerville	$ 2,225	$ 3,565
Tecumseh	3,560	6,003	Walled Lake	3,372	6,200
Tekonsha	3,041	4,959	Warren	3,657	6,655
Thompsonville	2,114	3,947	Watervliet	2,689	4,600
Three Oaks	3,087	5,132	Wayland	3,015	5,502
Three Rivers	2,953	5,135	Wayne	3,464	6,498
Traverse City	2,856	5,300	Webberville	2,794	5,033
Trenton	3,959	7,319	West Branch	2,600	4,528
Troy	4,741	8,668	Westland	3,376	6,349
Turner	2,229	3,898	Westphalia	2,765	4,856
Tustin	2,465	4,084	White Cloud	3,265	5,959
Twining	2,896	5,238	Whitehall	3,079	5,616
Ubly	2,263	3,666	White Pigeon	3,161	5,096
Union City	2,774	4,749	Whittemore	2,029	3,676
Unionville	2,615	5,139	Williamston	3,179	6,340
Utica	3,760	7,042	Wixom	3,158	6,486
Vandalia	1,945	3,099	Wolverine	2,015	3,512
Vanderbilt	1,966	3,482	Wolverine Lake	3,472	5,907
Vassar	3,391	6,951	Woodhaven	3,637	6,475
Vermontville	2,585	5,123	Woodland	2,605	4,742
Vernon	3,344	6,122	Wyandotte	3,429	6,504
Vicksburg	2,888	5,431	Wyoming	3,030	5,706
Wakefield	2,209	3,639	Yale	2,649	4,712
Waldron	2,050	3,472	Ypsilanti	2,850	5,287
Walker	3,092	5,653	Zeeland	3,082	5,698
			Zilwaukee	2,849	5,620

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, no. 761 (Washington, D.C.: 1979), Table 1; and Bureau of the Census, special release.

NOTE: There were 531 incorporated places in Michigan in 1977.

TABLE VI-16. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEAN AND MEDIAN INCOME AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1978 AND 1979

Income class	March 1978			March 1979		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
	Detroit, number of households in thousands					
Less than $4,000	96	45	141	59	53	112
4,000-6,999	58	71	129	65	67	132
7,000-9,999	21	81	102	29	47	76
10,000-11,999	32	58	90	23	36	59
12,000-14,999	39	55	94	34	69	103
15,000-17,499	35	83	119	44	69	113
17,500-19,999	37	72	109	42	86	128
20,000-24,999	49	144	193	59	127	186
25,000-29,999	27	125	152	32	116	148
30,000-49,999	44	168	212	53	226	279
50,000 and over	3	32	35	6	79	84
Total	441	934	1,375	446	974	1,421
	Detroit, income per household (1977-1978)					
Median (dollars)	12,726	20,050	17,785	15,623	22,392	19,710
Error (dollars)	569	532	405	764	761	537
Mean (dollars)	14,550	22,096	19,676	16,672	24,962	22,359
Error (dollars)	538	530	411	776	713	563

TABLE VI-16. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEAN AND MEDIAN INCOME AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1978 AND 1979 (cont.)

Income class	March 1978			March 1979		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
	U.S., number of households in thousands					
Less than $4,000	3,414	2,265	5,679	3,120	2,004	5,124
4,000-6,999	3,355	2,727	6,072	3,121	2,512	5,634
7,000-9,999	2,905	2,799	5,704	2,763	2,653	5,416
10,000-11,999	1,725	1,795	3,520	1,678	1,846	3,524
12,000-14,999	2,426	2,879	5,305	2,309	2,528	4,837
15,000-17,499	1,782	2,647	4,429	1,932	2,437	4,369
17,500-19,999	1,447	2,204	3,651	1,530	2,257	3,787
20,000-24,999	2,340	3,887	6,226	2,440	4,150	6,596
25,000-29,999	1,386	2,808	4,194	1,627	3,057	4,684
30,000-49,999	1,696	3,600	5,295	2,204	4,778	6,982
50,000 and over	438	855	1,293	634	1,213	1,847
Total	22,914	28,455	51,369	23,363	29,436	52,799
	U.S., income per household (1977-1978)					
Median (dollars)	12,059	16,579	14,611	13,089	18,238	15,970
Error (dollars)	83	86	74	119	118	84
Mean (dollars	14,898	18,940	17,137	16,305	20,743	18,779
Error (dollars)	91	85	63	123	116	86

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, nos. 117 and 121 (Washington, D.C.: 1978 and 1980) Table 11.

NOTE: The surveys were conducted in March 1978 and 1979. The income data pertain to 1977 and 1978. Median income is that of the middle household in a ranking of households, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all households divided by the number of households. A household consists of all persons, whether or not related, who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit. Error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-17. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEDIAN AND MEAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978

Income class	March 1977			March 1978		
	Families		Unrelated individuals, total SMSA	Families		Unrelated individuals, total SMSA
	Inside central city	Total SMSA		Inside central city	Total SMSA	
Detroit, number of families and unrelated individuals (000)						
Less than $3,000	16	18	84	12	19	92
3,000-4,999	39	60	52	21	38	67
5,000-6,999	35	65	32	15	49	57
7,000-9,999	24	87	35	16	66	34
10,000-11,999	13	51	24	22	68	28
12,000-14,999	27	83	39	31	82	14
15,000-19,999	74	219	34	55	177	58
20,000-24,999	32	165	15	48	185	8
25,000 and over	52	323	10	67	383	14
Total	312	1,071	325	287	1,066	371
Detroit, income per family or individual						
Median (dollars)	15,123	18,741	6,644	17,991	20,720	5,736
Error (dollars)	622	417	610	1,303	525	440
Mean (dollars)	15,226	20,582	8,593	18,077	22,641	8,359
Error (dollars)	594	439	398	894	663	602

TABLE VI-17. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION, AND MEDIAN AND MEAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977 AND 1978 (cont.)

Income class	March 1977 Families: Inside central city	March 1977 Families: Total SMSA	March 1977 Unrelated individuals, total SMSA	March 1978 Families: Inside central city	March 1978 Families: Total SMSA	March 1978 Unrelated individuals, total SMSA
U.S., number of families and unrelated individuals (000)						
Less than $3,000	722	1,255	3,678	635	1,108	3,292
3,000-4,999	1,312	2,158	3,090	1,159	1,890	3,421
5,000-6,999	1,386	2,610	2,059	1,321	2,482	2,268
7,000-9,999	1,902	4,126	2,372	1,813	3,782	2,577
10,000-11,999	1,215	2,758	1,228	1,087	2,434	1,343
12,000-14,999	1,897	4,412	1,261	1,701	3,953	1,493
15,000-19,999	2,784	7,372	1,071	2,515	6,663	1,416
20,000-24,999	1,908	5,357	392	2,016	5,603	480
25,000 and over	2,405	7,908	361	3,112	9,926	542
Total	15,531	37,956	15,512	15,360	37,841	16,832
U.S., income per family or individual						
Median (dollars)	13,952	16,001	5,900	14,933	17,371	6,449
Error (dollars)	103	65	59	161	110	92
Mean (dollars)	16,017	18,019	7,768	17,404	19,579	8,536
Error (dollars)	105	69	64	165	106	99

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, nos. 114 and 118 (Washington, D.C.: 1979), Table 19.

NOTE: The surveys were conducted in March 1977 and 1978. The income data pertain to 1976 and 1977. Median income is that of the middle item in a ranking, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all units divided by the number of units. A family consists of two or more related individuals living together Error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-18. PREVIOUS YEAR'S POVERTY AMONG PERSONS AND FAMILIES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: CENSUS 1970, MARCH 1977, AND MARCH 1978

Item and year	Persons			Families		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
			Detroit SMSA			
Number below poverty threshold (000)						
1970	222	130	352	42	26	68
1977	249	135	384	55	28	83
1978	174	142	316	34	31	65
Poverty rate[a]						
1970	14.9	4.9	8.5	11.3	3.9	6.5
1977	20.4	n.a.	9.4	17.7	n.a.	7.8
1978	14.7	4.9	7.8	11.8	4.0	6.1
			All U.S. SMSAs			
Number below poverty threshold (000)						
1970	7,993	5,091	13,084	1,609	1,002	2,611
1977	9,482	5,746	15,229	1,961	1,276	3,237
1978	9,203	5,657	14,859	1,925	1,216	3,141
Poverty rate[a]						
1970	12.7	6.8	9.5	9.8	5.3	7.4
1977	15.8	6.9	10.7	12.6	5.7	8.5
1978	15.4	6.8	13.9	12.5	5.4	8.3

SOURCE: Bureau of the Census, U.S. Census of Population 1970, General Social and Economic Characteristics, Michigan (Washington, D.C.: 1972), Final Report PC(1)-C-24, Table 90, Current Population Reports, Series P-60, no. 115 (Washington, D.C.: 1978), Table 46, and Current Population Reports, Series P-60, no. 119 (Washington, D.C.: 1979), Tables 3 and 46.

a. Number below poverty threshold as a percentage of total population.

TABLE VI-19. CONSUMER PRICE INDEXES FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND THE URBAN UNITED STATES BY ITEM, ANNUAL AVERAGES: 1975-1979

Items	1975		1976		1977		1978		1979	
	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States
All items	160.3	161.2	168.9	170.5	180.4	181.5	194.1	195.3	218.7	217.7
Food	171.6	175.4	176.5	180.8	186.0	192.2	206.9	211.2	229.0	234.7
Food at home	171.1	175.8	173.3	179.5	183.5	190.2	205.0	209.9	228.3	232.5
Cereals & bakery products	189.8	184.8	184.5	180.6	193.7	183.5	209.9	200.5	230.0	220.8
Meats, poultry, fish, eggs	172.2	178.0	172.4	179.4	171.9	178.4	197.4	204.0	228.6	233.8
Dairy products	158.8	156.6	167.3	169.3	173.9	173.9	190.1	185.8	221.7	207.6
Fruits and vegetables	157.4	171.0	158.9	175.4	171.0	191.6	195.8	211.8	209.7	228.3
Other foods at home	177.9	184.8	184.5	189.9	215.3	224.1	245.3	189.5	258.0	208.5
Food away from home	174.1	174.3	186.4	186.1	199.2	200.3	220.3	218.3	240.1	244.4
Housing	163.8	166.8	173.2	177.2	184.6	189.6	196.3	206.6	228.7	227.5
Shelter	170.3	169.7	177.2	179.0	188.0	191.1	204.1	210.3	244.8	240.3
Rent	135.9	137.3	142.1	145.4	150.8	153.5	162.6	163.9	176.5	175.9
Homeownership	177.2	181.7	184.3	191.7	195.4	204.9	212.2	227.2	258.0	263.6
Fuel and utilities	161.6	167.8	182.8	182.7	205.7	202.2	224.5	216.1	249.6	239.7
Fuel oil and coal	226.7	235.3	248.6	250.8	285.7	283.4	309.0	298.3	424.7	403.6
Gas and electricity	171.7	169.6	197.7	188.9	223.0	213.4	247.0	232.6	277.4	257.6
Household furnishings and operation	145.0	158.1	156.6	168.5	160.5	177.0	159.3	177.0	172.5	188.9
Apparel and upkeep	137.9	142.3	142.0	147.6	146.7	154.2	151.9	159.5	151.7	166.4
Men's and boy's	144.5	142.2	151.5	147.2	154.3	154.0	152.6	157.5	149.5	161.4
Women's and girl's	126.5	138.1	128.1	141.9	130.9	146.4	142.2	149.1	136.5	151.3
Footwear	146.9	144.2	147.2	149.9	150.8	156.9	148.1	163.1	158.1	176.1
Transportation	149.1	150.6	160.2	165.5	174.7	177.3	184.2	185.8	208.8	212.8
Private	148.0	149.8	159.5	164.6	174.8	176.7	183.8	185.3	208.8	212.9
Public	160.8	158.6	168.6	174.2	172.6	182.4	194.9	188.1	210.4	200.0

TABLE VI-19. CONSUMER PRICE INDEXES FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND THE URBAN UNITED STATES BY ITEM, ANNUAL AVERAGES: 1975-1979 (cont.)

Items	1975		1976		1977		1978		1979	
	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States
Health and recreation	161.1	153.5	173.6	163.3	186.8	173.7	--	--	--	--
Medical care	187.4	168.6	209.1	184.7	234.8	202.4	251.9	219.4	276.3	240.1
Personal care	150.3	150.7	160.7	160.5	172.6	170.9	181.5	182.0	191.0	195.5
Reading and recreation	145.0	144.4	152.2	151.2	156.9	157.9	--	--	--	--
Other goods and services	149.7	147.4	156.4	153.3	164.1	159.2	183.0	183.2	195.6	196.3

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor (Lansing: 1979), Table B-17.

NOTE: Annual averages of monthly figures; 1967=100.

TABLE VI-20. CONSUMER PRICE INDEX FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, BY MONTH: 1960-1979

(1976 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
Urban wage earners and clerical workers													
1960	87.1	87.5	87.5	87.6	87.7	88.3	88.8	88.7	88.5	88.7	88.7	88.8	88.2
1961	89.1	89.2	88.8	88.7	88.7	88.8	88.6	88.8	88.2	88.5	88.3	87.8	88.7
1962	88.0	88.8	88.8	88.9	88.8	88.6	88.7	89.0	89.5	89.5	89.3	89.2	88.9
1963	89.2	89.3	89.3	88.9	89.1	90.1	90.4	90.9	89.9	90.1	90.3	90.2	89.8
1964	90.3	89.7	90.2	90.3	89.8	90.2	90.7	90.8	91.0	91.3	91.0	91.2	90.5
1965	91.4	91.0	91.2	91.9	92.3	93.1	93.0	93.0	93.0	93.5	93.6	94.0	92.6
1966	94.3	94.7	95.4	95.9	96.3	96.8	96.9	97.4	97.6	98.0	98.1	98.6	96.7
1967	98.6	98.8	99.5	99.7	99.7	99.8	100.1	100.3	100.3	100.5	101.0	101.3	100.0
1968	101.5	102.1	102.9	103.1	103.5	104.3	104.7	105.0	105.5	105.9	106.3	106.6	104.3
1969	106.9	107.4	108.9	109.4	110.0	110.8	111.1	111.8	111.9	112.4	113.0	113.8	110.6
1970	114.1	115.1	115.8	116.4	117.4	117.7	117.9	117.8	118.4	119.3	119.9	119.5	117.4
1971	120.3	120.0	120.1	120.1	120.9	121.8	121.8	122.8	122.8	122.8	123.4	123.7	121.7
1972	124.2	124.9	125.0	125.0	125.5	126.0	126.7	126.9	127.3	127.2	127.4	128.3	126.2
1973	128.5	129.7	131.1	132.4	133.4	133.7	133.8	136.8	137.3	137.9	139.0	140.0	134.5
1974	141.5	143.8	144.9	145.4	146.4	148.4	149.4	150.9	152.4	153.8	155.2	156.0	149.0
1975	155.5	156.5	157.0	157.7	158.1	159.7	160.8	161.3	162.8	163.1	163.9	164.6	160.1
1976	165.7	165.8	165.6	166.4	167.3	168.0	169.2	169.7	171.3	171.4	172.5	173.1	168.8
1977	173.8	175.1	176.8	179.0	179.3	181.0	182.5	182.6	182.8	183.1	184.5	184.4	180.4
1978	185.0	185.8	187.9	189.8	192.1	194.6	194.7	196.2	198.2	200.7	201.7	201.9	194.1
1979	204.9	208.8	211.6	213.2	214.1	215.5	219.8	222.6	223.5	226.9	230.8	232.2	218.7
All urban consumers													
1978	185.0	185.6	188.4	190.2	192.3	194.5	194.6	195.8	197.7	200.9	202.0	202.2	194.1
1979	205.1	208.8	211.6	213.2	213.9	215.4	219.5	222.2	223.7	227.2	231.3	233.2	218.8

SOURCE: Bureau of Labor Statistics, special release.

TABLE VI-21. ANNUAL COSTS OF A MODERATE STANDARD OF LIVING FOR A FAMILY OF FOUR IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1978 AND 1979

Item	1978		1979	
	Detroit	United States	Detroit	United States
Food	$ 4,546	$ 4,609	$ 5,005	$ 5,044
At home[a]	3,767	3,877	4,160	4,223
Away from home	779	732	845	821
Housing[b]	4,326	4,182	4,716	4,594
Shelter	3,464	3,226	3,804	3,573
Renter costs	2,026	2,165	2,233	2,340
Homeowner costs	3,943	3,580	4,327	3,983
Furnishings and operations	869	956	912	1,021
Transportation[c]	1,548	1,572	1,799	1,851
Automobile owners	1,610	1,653	1,872	1,949
Clothing	1,273	1,209	1,195	1,235
Personal care	426	403	452	433
Medical care	1,183	1,070	1,280	1,176
Other family consumption[d]	977	956	1,022	1,021
Total consumption	14,279	14,000	15,469	15,353
Other items[e]	820	810	881	877
Personal income taxes	2,975	2,738	3,196	3,031
Other payroll taxes[f]	1,071	1,073	1,275	1,256
TOTAL	19,145	18,622	20,821	20,517

SOURCE: Bureau of Labor Statistics, News, 29 April 1979, USDL release 79-305, Table 3, and 30 April 1980, USDL release 80-278 (Washington, D.C.: periodically).

NOTE: Family of four comprised of husband, 38, working full time, wife in the labor force, daughter, 8, and son, 13.

a. Nutritionally adequate diet varied according to different tastes in different regions.

b. Weighted average of homeowner costs (75 percent) and renter costs (25 percent). Renter costs include heat and utilities; homeowner costs include heat and utilities and payments on 6-year-old mortgages.

c. Assumed 100 percent automobile ownership in areas of less than 1.4 million population.

d. Reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

e. Gifts and contributions, life insurance, and occupational expenses.

f. Social Security and disability.

TABLE VI-22. ANNUAL COSTS OF A MODERATE STANDARD OF LIVING FOR A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1977 AND 1978

Item	1977		1978	
	Detroit	United States[a]	Detroit	United States[a]
Food	1,986	2,035	2,239	2,299
At home[b]	1,762	1,809	1,994	2,052
Away from home	224	227	245	247
Housing	2,470	2,518	2,682	2,641
Shelter	1,490	1,592	1,728	1,689
Renter costs[c]	1,643	1,579	1,773	1,690
Homeowner costs	1,565	1,661	1,703	1,689
Furnishings and operations	878	886	954	952
Transportation	715	658	766	701
Automobile owners[d]				
Clothing	368	360	397	369
Personal care	218	214	224	229
Medical care	644	632	777	769
Other family consumption[e]	379	347	401	479
Total consumption	6,780	6,765	7,486	7,374
Other items[f]	434	433	479	472
TOTAL costs	7,214	7,198	7,965	7,846

SOURCE: Bureau of Labor Statistics, News, 20 August 1979 (Washington, D.C.: periodically), USDL release 78-588, Table 2.

NOTE: The retired couple is assumed to be a husband, aged 65 or older, and his wife. They are assumed to be self-supporting and living in an urban area; they are in reasonably good health and take care of themselves.

a. Weighted average of 56 urban areas.

b. Nutritionally adequate diet varied according to different tastes in different regions.

c. Weighted average of homeowner costs (65 percent) and renter costs (35 percent). Renter costs include heat and utilities; homeowner costs include heat and utilities and payments on 6-year-old mortgages.

d. Assumed 100 percent automobile ownership in areas of more than 1.4 million population.

e. Reading, recreation, tobacco products, alcoholic beverages, and miscellaneous expenditures.

f. Gifts and contribution.

TABLE VI-23. TREND IN ANNUAL TOTAL BUDGET COSTS AT THREE LEVELS FOR A FAMILY OF FOUR AND A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES: 1971-1979

Year	Family of four			Retired couple		
	Low	Medium	High	Low	Medium	High
			Detroit			
1971	$ 7,074	$10,754	$15,665	$ 3,298	$ 4,784	$ 7,756
1972	7,271	11,502	16,749	3,439	5,006	8,104
1973	8,246	12,810	18,591	3,780	5,484	8,458
1974	9,138	14,390	21,142	4,267	6,116	9,489
1975	9,501	15,701	22,947	4,506	6,515	10,077
1976	9,865	16,514	24,226	4,661	6,731	10,465
1977	10,400	17,427	25,550	5,020	7,214	11,188
1978	11,596	19,145	28,172	5,577	7,965	12,265
1979	12,582	20,821	30,668	n.a.	n.a.	n.a.
			Urban United States			
1971	7,214	10,971	15,905	3,319	4,776	7,443
1972	7,386	11,446	16,558	3,442	4,967	7,689
1973	8,181	12,626	18,201	3,763	5,414	8,043
1974	9,198	14,333	20,777	4,228	6,041	8,969
1975	9,588	15,318	22,294	4,501	6,465	9,598
1976	10,041	16,236	23,759	4,695	6,738	10,048
1977	10,481	17,106	25,202	5,031	7,198	10,711
1978	11,546	18,622	27,420	5,514	7,846	11,596
1979	12,585	20,517	30,317	n.a.	n.a.	n.a.

SOURCE: Bureau of Labor Statistics, News, 30 April 1980 (Washington, D.C.: periodically), and similar releases for previous years.

n.a.: not available.

VII. SOCIAL WELFARE

The Michigan Department of Social Services, charged with the responsibility for administering the state's public welfare and related programs, conducts research and functions as the repository of relevant data. Published sources include the Annual Report and the monthly publication, Social Service Statistics.

Information related to other social welfare programs is available from annual reports of the various agencies that administer them, for example, the Social Security Administration, the Veterans Administration, and the Railroad Retirement Board.

Data for Table VII-1 were drawn from the tabulations released by the Bureau of Economic Analysis in conjunction with its personal income statistics program. A more complete statement of those data is included at the beginning of chapter VI.

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TABLE VII-1. TRANSFER PAYMENTS IN MICHIGAN AND THE UNITED STATES: 1958-1978

(In millions of dollars)

Year	Michigan	United States	Michigan as a percentage of the United States
1958	1,254	25,978	4.83
1959	1,154	27,064	4.26
1960	1,207	28,940	4.17
1961	1,425	32,817	4.34
1962	1,384	33,770	4.10
1963	1,411	35,838	3.94
1964	1,459	37,430	3.90
1965	1,575	40,414	3.90
1966	1,746	44,667	3.91
1967	2,079	52,595	3.95
1968	2,346	59,920	3.92
1969	2,596	66,512	3.90
1970	3,234	79,881	4.05
1971	3,829	94,111	4.07
1972	4,287	104,099	4.12
1973	4,780	118,886	4.02
1974	5,945	140,826	4.22
1975	7,822	178,166	4.39
1976	8,103	193,841	4.18
1977	8,491	208,369	4.08
1978	9,017	224,093	4.02

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: See Table VII-2 for listing of items comprising transfer payments.
p: Preliminary.

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1977 AND 1978

(In millions of dollars)

Item	Michigan		United States	
	1977	1978	1977	1978
Old Age, Survivors, and Disability Insurance	3,522	3,893	83,238	91,397
Railroad retirement and disability	86	90	3,784	3,985
Federal employees retirement	146	166	9,929	11,271
State and local gov't employees retirement	475	537	10,797	12,200
Medical insurance payments[a]	968	1,108	21,972	25,161
Workmen's compensation[b]	46	53	1,972	2,249
Black lung	12	13	972	1,038
Other government disability, insurance, and retirement programs[c]	(L)	(L)	574	622
Total government retirement, disability, and insurance programs	5,254	5,860	133,238	147,923
State unemployment insurance programs	761	483	12,018	8,685
Unemployment insurance payments to federal gov't civilian employees	11	5	276	186
Unemployment insurance payments to railroad employees	6	6	173	191
Trade adjustment assistance payments	13	11	159	297
Public service and jobless benefits	0	4	3	170
Total unemployment insurance payments, excluding those to veterans under special veterans programs	791	509	12,629	9,529
Educational and training assistance payments[d]	68	73	1,921	2,270
Supplemental security income	189	204	6,375	6,689
Aid to families with dependent children	740	823	10,578	10,699
General assistance program	104	104	1,237	1,206
Emergency assistance	6	7	62	74
Bonus value of food stamps	126	129	4,396	4,597
Other assistance payments[e]	30	28	1,201	1,203
Total income maintenance programs	1,195	1,296	23,849	24,468
Other government transfer payments[f]	1	2	193	186
Total governments payments to individual civilians	7,309	7,740	171,830	184,376

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1977 AND 1978 (cont.)

(In millions of dollars)

Item	Michigan		United States	
	1977	1978	1977	1978
Pensions, retirement pay, terminal leave, and mustering out pay of military personnel	385	411	17,447	18,891
Unemployment insurance for veterans	28	16	468	291
Educational payments to veterans and their dependents and survivors	101	88	3,179	2,857
Military life insurance benefit payments	30	32	982	1,033
Other government payments to veterens[g]	9	8	239	240
Total government payments to retired military personnel, veterans, and dependents	554	555	22,315	23,312
Payments to nonprofit institutions	224	298	5,476	7,247
Business transfer payments	404	425	8,748	9,158
Total transfer payments	8,491	9,017	208,369	224,093

SOURCE: Bureau of Economic Analysis, Regional Economic Information System.

a. Medicare.
b. Compensation to disabled government employees.
c. Payments to beneficiaries of state disability programs and beneficiares of the Panama Canal Construction Annuity Act.
d. National Science Foundation fellowships; other federal fellowships; subsistence of state marine school cadets; higher education loans - interest subsidy payments; basic education opportunity grants; area redevelopment payments, Manpower Development, Training and Assistance Act payments; and Job Corps payments.
e. Refugee Assistance payments (includes Cuban and Southeast Asia refugees), Civilian War Assistance and Enemy Aliens Act payments, foster home care in public facilities, special federal payments to selected individuals, and payments for earned income tax credit.
f. Bureau of Indian Affairs payments, education exchange, and payments for Alaska Native Claims Settlement Act.
g. Payments to paraplegics, for automobiles for disabled veterans, to war orphans, to children of disabled veterans, to prisoners of war; veterans' aid; and veterans' bonus payments by state and local government.
L: Less than $50,000.

TABLE VII-3. ESTIMATED NUMBER AND PROPORTION OF THE POPULATION AGED 65 AND OLDER RECEIVING OASDHI CASH BENEFITS AND SSI PAYMENTS, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	OASDHI[a]		SSI[b]		Both	
	Michigan	United States	Michigan	United States	Michigan	United States
	Number (in thousands)					
1966	634	15,611	40	2,069	--	1,007
1967	656	16,081	40	2,069	--	1,096
1968	667	16,490	38	2,024	--	1,169
1969	679	16,884	38	2,072	--	1,181
1970	695	17,374	40	2,081	--	1,243
1971	710	17,900	41	2,024	--	1,127
1972	724	18,482	41	1,933	--	1,276
1973	747	19,269	38	1,820	--	1,189
1974	763	19,834	49	2,286	--	1,483
1975	782	20,449	52	2,307	36	1,603
1976	799	21,043	47	2,148	33	1,495
1977	818	21,731	54	2,353	38	1,645
1978[c]	825	21,867	53	2,341	38	1,650
	Proportion[d]					
1966	878	822	55	110	30	55
1967	863	839	52	108	29	58
1968	874	846	49	104	27	58
1969	897	854	50	105	39	61
1970	911	848	45	101	30	63
1971	915	853	53	96	31	62
1972	918	865	52	90	33	61
1973	941	884	48	84	31	56
1974	946	888	61	103	40	68
1975	951	901	63	102	44	71
1976	947	906	56	92	39	64
1977	952	913	62	99	44	69
1978[c]	951	899	61	96	43	68

SOURCE: Social Security Administration, Social Security Bulletin, December 1968 through October 1979 (Washington, D.C.: monthly), vol. 42, no. 12 (October 1979): Tables M-25 and M-26.

a. Old age, survivors, disability, and health insurance program of the federal government (Social Security).

b. For 1965-1973, data refer to old age assistance program; beginning January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

c. Figures pertain to June 1977.

d. Number per 1,000 population aged 65 and over.

TABLE VII-4. AMOUNT OF OASDHI CASH BENEFITS PAID IN MICHIGAN AND THE UNITED STATES, BY TYPE OF PROGRAM: 1971-1978

(In millions of dollars)

Program	1971	1972	1973	1974	1975	1976	1977	1978
Michigan								
Old age & survivors insurance	1,439	1,575	1,928	2,207	2,443	2,728	3,010	3,284
Monthly benefits	1,425	1,562	1,915	2,195	2,430	2,715	2,998	3,271
Retired workers	904	998	1,195	1,386	1,536	1,724	1,913	2,103
Dependents	120	128	151	171	188	207	223	247
Survivors	391	427	560	631	701	778	857	916
Special age-72	10	9	8	7	6	5	5	4
Lump sum death payments	14	13	14	13	13	13	12	13
Disability insurance								
Monthly benefits	165	200	260	319	387	460	511	550
Disabled workers	132	161	212	261	317	376	420	452
Dependents	32	38	48	58	71	84	91	98
United States								
Old age & survivors insurance	33,413	37,122	45,741	51,618	58,509	65,699	73,113	80,352
Monthly benefits	33,107	36,802	45,412	51,291	58,172	65,366	72,801	80,008
Retired workers	21,589	24,230	29,351	33,367	38,094	43,057	48,134	53,255
Dependents	2,663	2,887	3,467	3,848	4,352	4,837	5,300	5,904
Survivors	8,567	9,418	12,328	13,839	15,526	17,297	19,210	20,707
Special age-72	288	266	267	237	198	174	157	142
Lump sum death payments	306	320	329	327	337	332	312	344
Disability insurance								
Monthly benefits	3,758	4,473	5,718	6,903	8,414	9,966	11,463	12,513
Disabled workers	3,028	3,626	4,676	5,662	6,908	8,190	9,456	10,315
Dependents	731	847	1,042	1,240	1,506	1,776	2,006	2,198

SOURCE: Social Security Administration, Social Security Bulletin, December 1971 through December 1979 (Washington, D.C.: monthly), Tables Q-15 or Q-16.

TABLE VII-5. NUMBER OF MONTHLY OASDHI CASH BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFICIARY, MICHIGAN AND THE UNITED STATES: DECEMBER 1970-1978

Year	Retired workers	Disabled workers	Spouses of		Children of			Widowed parents	Widows and widowers	Total
			Retired workers	Disabled workers	Retired workers	Deceased workers	Disabled workers			
					Michigan					
1970	544	58	111	10	20	112	34	21	138	1,050
1971	544	66	111	12	21	116	38	21	143	1,088
1972	561	75	111	14	21	119	44	22	148	1,128
1973	585	84	112	15	22	122	48	23	153	1,175
1974	603	95	112	17	22	122	53	23	157	1,213
1975	625	105	113	19	23	123	59	24	161	1,258
1976	643	112	114	19	23	123	62	24	164	1,291
1977	662	116	115	20	25	120	62	24	168	1,317
1978	678	116	115	19	23	115	60	23	171	1,325
					United States					
1970	13,870	1,492	2,681	283	542	2,691	888	523	3,227	26,228
1971	13,927	1,648	2,698	312	562	2,775	971	535	3,366	27,292
1972	14,555	1,832	2,734	350	582	2,845	1,088	540	3,509	28,476
1973	15,365	2,016	2,808	381	613	2,912	1,161	572	3,656	29,869
1974	15,958	2,237	2,826	412	619	2,893	1,263	574	3,770	30,853
1975	16,588	2,489	2,867	453	643	2,919	1,411	582	3,889	32,085
1976	17,165	2,670	2,896	474	653	2,903	1,480	579	3,995	33,023
1977	17,821	2,838	2,961	495	695	2,860	1,528	583	4,120	34,079
1978	18,358	2,880	2,980	492	661	2,780	1,497	576	4,212	34,586

SOURCE: Social Security Administration, Social Security Bulletin, December 1971 through December 1979 (Washington, D.C.: monthly), vol. 42, no. 12 (December 1979), Table Q-14.

TABLE VII-6. NUMBER AND AVERAGE MONTHLY BENEFITS OF RETIRED WORKERS UNDER OASDHI, MICHIGAN AND THE UNITED STATES: DECEMBER 1968-1978

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1968	494	12,421	$ 108.87	$ 98.86
1969	537	12,822	125.62	100.40
1970	548	13,349	127.41	118.10
1971	544	13,927	144.61	132.17
1972	561	14,555	177.18	162.35
1973	585.	15,365	180.80	166.40
1974	603	15,959	204.17	188.20
1975	625	16,588	224.42	207.18
1976	643	17,165	243.08	224.86
1977	662	17,821	262.11	242.98
1978	678	18,358	n.a.	263.19

SOURCE: Social Security Administration, Social Security Bulletin, December 1969 through December 1979 (Washington, D.C.: monthly), vol. 42, no. 12 (December 1979): Tables M-10, M-13, Q-13, and Q-14.
n.a.: not available.

TABLE VII-7. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	153	4,666	$ n.a.	$36.25
1967	183	5,309	44.40	39.50
1968	201	6,086	46.75	44.75
1969	246	7,313	56.90	45.15
1970	445	9,659	53.80	50.30
1971	507	10,653	63.28	52.30
1972	590	11,069	67.96	54.10
1973	600	10,815	74.03	56.95
1974	642	11,006	80.14	64.85
1975	676	11,383	88.43	71.72
1976	653	11,184	92.28	75.48
1977	623	10,761	99.08	79.46
1978	620	10,325	115.80	86.33

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1979 (Washington, D.C.: monthly), vol. 42, no. 6 (June 1979): Table M-35.

n.a.: not available.

TABLE VII-8. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER GENERAL ASSISTANCE, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (in thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	53	663	$ n.a.	$ 36.20
1967	65	782	35.75	39.43
1968	75	826	35.00	49.15
1969	69	860	43.50	50.25
1970	113	1,056	44.60	57.85
1971	85	982	72.79	64.80
1972	63	865	96.13	72.10
1973	49	700	122.26	81.95
1974	67	851	121.92	96.35
1975	76	977	130.66	102.07
1976	66	903	143.85	116.36
1977	51	819	147.24	125.35
1978	53	762	161.29	128.11

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1979 (Washington, D.C.: monthly), vol. 42, no. 6 (June 1979): Table M-39.
n.a.: not available.

TABLE VII-9. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER OLD AGE ASSISTANCE, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number (in thousands)		Amount	
	Michigan	United States	Michigan	United States
1966	40	2,073	$ 72.55	$ 68.05
1967	40	2,073	69.40	70.15
1968	38	2,027	70.55	69.55
1969	38	2,074	73.60	73.90
1970	40	2,082	77.30	77.65
1971	41	2,024	80.10	77.50
1972	41	1,934	70.68	79.95
1973	38	1,820	73.85	76.15
1974	49	2,285	94.62	91.09
1975	52	2,307	98.72	90.93
1976	47	2,148	100.77	94.35
1977	45	2,051	107.45	96.62
1978	43	1,968	116.29	100.43

SOURCE: Social Security Administration, Social Security Bulletin, April 1975 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25, M-27, and M-28.

NOTE: For 1965 to 1973, data refer to old age assistance program; beginning in January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

TABLE VII-10. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO THE BLIND, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number		Amount	
	Michigan	United States	Michigan	United States
1966	1,500	83,700	$ 82.20	$ 86.85
1967	1,500	82,600	86.40	90.45
1968	1,400	80,700	91.65	92.15
1969	1,400	80,300	95.80	98.75
1970	1,400	81,000	106.45	104.35
1971	1,555	80,343	112.08	106.39
1972	1,676	79,791	114.27	112.85
1973	1,717	77,882	113.15	112.00
1974	1,705	74,616	143.64	140.57
1975	1,681	74,489	149.05	146.57
1976	1,588	76,366	148.37	152.78
1977	1,659	77,362	159.41	159.20
1978	1,715	77,135	170.85	164.40

SOURCE: Social Security Administration, Social Security Bulletin, April 1975 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25 and M-28.

TABLE VII-11. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO THE PERMANENTLY AND TOTALLY DISABLED, MICHIGAN AND THE UNITED STATES: DECEMBER 1966-1978

Year	Number		Amount	
	Michigan	United States	Michigan	United States
1966	15,200	588,000	$ 83.05	$ 74.75
1967	18,000	646,000	84.60	80.60
1968	21,000	703,000	91.15	82.65
1969	24,700	803,000	96.00	90.15
1970	30,000	933,000	105.75	97.65
1971	37,689	1,068,383	111.29	102.25
1972	47,883	1,167,906	111.29	106.15
1973	53,687	1,274,982	121.56	109.75
1974	60,287	1,635,539	147.05	141.90
1975	66,105	1,932,681	151.38	141.15
1976	68,253	2,011,876	153.66	145.50
1977	71,074	2,109,409	160.53	150.36
1978	73,234	2,171,890	175.07	154.82

SOURCE: Social Security Administration, Social Security Bulletin, April 1976 through April 1979 (Washington, D.C.: monthly), vol. 42, no. 4 (April 1979): Tables M-25, and M-28.

TABLE VII-12. ESTIMATED EXPENDITURES IN MICHIGAN BY THE VETERANS ADMINISTRATION: FISCAL YEARS 1972-1978

(In millions of dollars)

Item	1972	1973	1974	1975	1976	1977	1978
Compensation and pensions	208.1	219.8	221.8	245.3	264.7	282.7	296.1
Vocational rehabilitation and education	72.1	97.9	115.7	171.9	204.0	124.8	101.0
Direct loans	.4	.18	.1	.1	.1	.1	.09
Insurance and indemities	34.9	22.3	25.6	29.4	26.8	30.3	29.4
Hospital and domiciliary construction	1.3	.7	2.4	3.9	2.2	1.2	2.1
Administrative costs and other benefits	71.9	88.5	84.3	95.7	108.9	122.4	135.7
Total	389.3	430.1	450.5	546.4	606.6	561.6	564.3

SOURCE: Administrator of Veterans Affairs, Annual Report, 1972 through 1978 (Washington, D.C.: annually), Table 87 (1978).

TABLE VII-13. BENEFITS PAID IN MICHIGAN UNDER THE RAILROAD RETIREMENT AND UNEMPLOYMENT INSURANCE ACTS, BY CLASS OF BENEFIT: FISCAL YEARS 1966-1978

(In thousands of dollars)

Year	Retirement	Survivor	Unemployment	Sickness	Total
1966	21,447	7,773	937	853	31,010
1967	22,920	7,983	778	924	32,605
1968	25,455	8,562	948	843	35,807
1969	27,594	9,461	995	1,464	39,513
1970	28,007	10,079	957	1,510	40,553
1971	33,828	11,520	1,974	1,494	48,817
1972	37,395	12,514	2,630	1,226	53,766
1973	42,249	14,961	1,681	1,095	59,988
1974	44,761	16,658	1,010	905	63,334
1975	50,429	19,381	2,047	952	72,809
1976	55,276	22,753	4,625	2,692	85,346
1977	59,764	24,575	3,419	2,709	90,466
1978	62,536	25,733	4,042	2,517	94,829

SOURCE: Railroad Retirement Board, Annual Report 1966 through 1978 (Washington, D.C.: annually), Table 7 (1978).

TABLE VII-14. NUMBER OF FOOD STAMP RECIPIENTS IN MICHIGAN, FISCAL YEARS: 1970-1979

(Monthly average number of persons)

Year	Total	In public assistance households	In nonpublic assistance households
1970	174,844	133,662	41,182
1971	514,234	305,030	209,204
1972	564,309	414,955	149,354
1973	539,715	427,375	112,340
1974	533,225	429,516	103,709
1975	642,412	473,839	168,573
1976	681,979	500,356	181,623
1977	631,748	490,984	140,764
1978	567,692	441,412	126,280
1979	633,520	480,737	152,783

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

TABLE VII-15. VALUE OF FOOD STAMPS ISSUED IN MICHIGAN, FISCAL YEARS: 1970-1979

Year	Total value[a] ($000)	Purchase value[b] ($000)	Bonus value[c] ($000)	Percentage of bonus value to total value	Average bonus per person
1970	43,281	25,946	17,335	40.1	8.26
1971	141,129	66,549	74,580	52.8	12.09
1972	160,662	84,097	76,565	47.7	11.31
1973	157,637	91,482	66,155	42.0	10.21
1974	180,063	100,310	79,753	44.3	12.46
1975	257,212	133,869	123,343	48.0	16.00
1976	299,442	155,765	143,677	48.0	17.56
1977	285,500	153,314	132,186	46.3	17.46
1978	270,400	145,575	124,925	46.2	18.36
1979	210,000	--	210,000	--	--

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

a. Available for food purchases.
b. Purchase requirement for recipients. New federal regulations eliminate the purchase requirement effective 1 January 1979.
c. Difference between value and purchase requirement. The change in federal regulations effective fiscal year 1979 also eliminates the distinction between total value of coupons and the bonus value.

TABLE VII-16. MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS AND EXPENDITURES FOR MEDICAL ASSISTANCE IN MICHIGAN, BY TYPE OF CASE AND TYPE OF SERVICE, FISCAL YEARS: 1978 AND 1979

Classification	Year	Recipients[a]	Expenditures	Average per recipient
		Type of case		
Age 65 and over	1978	89,651	$ 224,561,475	$ 2,504.84
	1979	90,927	253,223,725	2,784.91
Blind	1978	1,688	2,617,579	1,550.70
	1979	1,723	3,504,347	2,033.86
Disabled	1978	101,406	307,991,387	3,037.21
	1979	105,573	372,899,592	3,532.15
Dependent children under age 21	1978	475,396	158,521,966	333.45
	1979	454,493	116,027,134	365.30
Adults in families with dependent children	1978	234,179	194,436,844	830.29
	1979	235,918	226,218,338	958.89
Other children under age 21	1978	9,612	12,906,087	1,342.71
	1979	9,032	14,526,539	1,608.56
		Type of service		
Inpatient general hospital services	1978	145,522	259,414,087	1,782.65
	1979	147,673	342,846,567	2,321.66
Inpatient mental hospital services	1978	6,742	39,631,481	5,878.30
	1979	7,399	41,775,825	5,646.14
Skilled nursing home serv.	1978	29,799	156,532,950	5,252.96
	1979	30,057	161,433,789	5,370.92
Intermediate care services:				
Mentally retarded	1978	5,087	90,320,670	17,755.19
	1979	5,511	109,870,818	19,936.64
Other	1978	22,683	106,573,479	4,698.39
	1979	24,008	122,053,728	5,083.88
Physicians' services	1978	721,874	113,178,810	156.78
	1979	728,187	120,666,939	165.71
Dental services	1978	190,862	18,709,819	98.03
	1979	196,291	19,301,589	98.31
Other practitioners' serv.	1978	137,197	7,494,652	54.63
	1979	145,245	8,389,158	57.76
Outpatient hosp. serv.	1978	385,099	29,470,766	76.53
	1979	387,669	21,604,094	55.73
Clinic services	1978	20,215	694,581	34.36
	1979	21,602	688,402	31.87
Lab. & radiological serv.	1978	174,431	10,699,553	61.34
	1979	181,247	11,713,476	64.63
Home health serv.	1978	3,883	1,487,642	383.12
	1979	4,343	2,088,400	480.88
Prescribed drugs	1978	652,312	53,470,049	81.97
	1979	659,088	59,435,780	90.18
Family planning serv.	1978	118,066	7,393,116	62.62
	1979	116,333	6,167,220	53.01
Other care	1978	83,626	5,963,683	71.31
	1979	80,841	8,365,822	103.41
TOTAL	1978	911,932	901,035,338	988.05
	1979	897,666	1,036,401,675	1,154.55

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal Year 1978 (Lansing: 1979), Table 1, and Medical Assistance (Medicaid) Fiscal Year 1979 (Lansing: 1980), Table 1.

a. The sum of recipients by type of service adds to more than the total because more than one type of service was provided to many recipients.

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1979 AND 1980

Program	1979	1980	Percentage change
	Persons or cases		
Aid to families with dependent children			
Number of families			
Unemployed parent	12,936	17,283	+ 33.6
Regular segment	185,552	193,711	+ 4.4
Number of recipients			
Unemployed parent	59,888	76,386	+ 27.5
Regular segment	558,441	574,045	+ 2.8
Number of children			
Unemployed parent	34,082	43,416	+ 27.4
Regular segment	390,306	395,909	+ 1.4
General assistance			
Cases with children	3,625	4,284	+ 18.2
Cases without children	37,754	67,827	+ 79.7
Number of recipients	53,443	86,677	+ 62.2
Emergency assistance			
Families receiving AFDC	2,057	3,155	+ 53.4
Families not receiving AFDC	269	1,363	(a)
Recipients receiving AFDC	7,299	11,021	+ 51.0
Recipients not receiving AFDC	959	4,937	(a)
Food Stamps			
Households receiving other public assistance	164,050	200,172	+ 22.0
Households not receiving other public assistance	63,625	99,176	+ 55.9
Recipients receiving other public assistance	494,718	549,566	+ 11.1
Recipients not receiving other public assistance	140,676	217,867	+ 54.9
Total recipients of money payments	808,657	951,393	+ 17.6
	Amounts ($000)		
Aid to families with dependent children			
Unemployed parent	5,845.8	7,688.8	+ 31.5
Regular segment	57,192.2	70,015.6	+ 9.8
General assistance	8,376.8	13,747.6	+ 64.1
Emergency assistance			
Receiving AFDC	378.3	674.3	+ 78.2
Not receiving AFDC	53.0	353.9	(a)

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1979 AND 1980 (cont.)

Program	1979	1980	Percentage change
	Amounts ($000) (cont.)		
Food stamps			
Purchase value	(b)	(b)	(b)
Bonus value	13,683.5	20,820.7	+ 52.2
Cuban relief	2.8	.9	- 67.5
Medical assistance	90,880.5	91,366.6	+ .5
Total amount of money payments	92,113.4	113,300.8	+ 23.0
	Amounts per family or recipient		
Aid to families with dependent children			
Per family			
Unemployed parent	451.90	444.88	- 1.6
Regular segment	343.71	361.44	+ 5.2
Per recipient			
Unemployed parent	97.61	100.66	+ 3.1
Regular segment	114.20	121.97	+ 6.8
General assistance			
Per case	202.44	190.64	- 5.8
Per recipient	156.74	158.61	+ 1.2
Emergency assistance			
Per case	183.18	227.58	+ 24.2
Per recipient	52.19	66.43	+ 27.3
Food stamps			
Bonus per household	60.09	69.55	+ 15.7
Bonus per recipient	21.53	27.13	+ 26.0
Total expenditures per family recipient	113.91	119.09	+ 4.5

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1980, Table 1.

a. More than 100 percent.

b. New federal regulations eliminated the purchase requirement effective 1 January 1979.

TABLE VII-18. ERROR RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1975-1979

(Percentage of total cases)

Reporting period	Source		Type			
	Agency	Client	Ineligible	Overpayment	Underpayment	Total
Jan-Jun 1975	19.6	21.0	8.0	25.4	7.2	40.6
Jul-Dec 1975	17.7	17.3	6.7	20.8	7.5	35.0
Jan-Jun 1976	19.8	16.9	5.4	24.6	6.7	36.7
Jul-Dec 1976	15.8	15.6	4.9	19.4	7.0	31.4
Jan-Jun 1977	16.3	12.1	4.3	16.1	8.1	28.4
Jul-Dec 1977	13.8	13.8	4.4	17.2	7.3	29.0
Jan-Jun 1978	14.4	13.3	4.5	16.5	6.7	27.6
Jul-Sep 1978	12.6	14.0	5.2	15.0	6.4	26.6
Oct 1978-Mar 1979	18.1	15.1	4.6	19.7	8.9	33.2

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the July-December 1977 Reporting Period (Lansing: 1978); and Michigan AFDC Corrective Action Plan for the October 1978 through March 1979 Reporting Period (Lansing: 1979).

TABLE VII-19. MISPAYMENT RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1975-1979

(Percentage of total funds)

Reporting period	Ineligible cases	Overpayment cases	Underpayment cases	Total
Jan-Jun 1975	7.2	6.5	0.8	14.5
Jul-Dec 1975	6.4	5.5	1.0	12.9
Jan-Jun 1976	5.3	6.5	0.6	12.4
Jul-Dec 1976	4.8	5.1	0.7	10.6
Jan-Jun 1977	4.4	4.9	1.0	10.3
Jul-Dec 1977	4.0	4.7	1.2	9.9
Jan-Jun 1978	3.9	4.3	0.6	8.8
Jul-Sep 1978	5.5	4.1	1.7	11.3
Oct 1978-Mar 1979	4.3	5.5	0.8	10.7

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the July-December 1977 Reporting Period (Lansing: 1978); and Michigan AFDC Corrective Action Plan for the October 1978 through March 1979 Reporting Period (Lansing: 1979).

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978

County	Year	Benefit category					Adult beneficiaries		
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Alcona	1977	1,551	220	375	302	306	1,169	1,283	2,754
	1978	1,629	240	378	302	320	1,234	1,333	2,869
Alger	1977	978	186	212	291	263	787	852	1,930
	1978	1,007	179	223	259	272	789	892	1,940
Allegan	1977	5,763	866	1,178	1,503	1,365	3,967	5,205	10,675
	1978	5,943	858	1,179	1,476	1,369	4,057	5,292	10,825
Alpena	1977	2,953	479	742	939	920	2,200	2,894	6,033
	1978	3,052	492	747	902	948	2,249	2,990	6,141
Antrim	1977	1,956	250	380	394	390	1,357	1,619	3,370
	1978	2,030	259	391	382	404	1,397	1,687	3,466
Arenac	1977	1,628	286	388	425	388	1,262	1,428	3,115
	1978	1,679	283	398	420	399	1,308	1,451	3,179
Baraga	1977	1,006	192	268	290	263	861	868	2,019
	1978	1,044	185	260	278	265	867	887	2,032
Barry	1977	3,223	458	668	777	722	2,251	2,820	5,848
	1978	3,316	480	695	765	723	2,304	2,910	5,979
Bay	1977	8,606	1,355	1,948	2,540	2,792	6,006	8,695	17,241
	1978	8,839	1,338	1,998	2,391	2,815	6,112	8,878	17,381
Benzie	1977	1,357	181	252	302	235	902	1,123	2,327
	1978	1,393	186	268	275	222	925	1,144	2,344
Berrien	1977	15,129	2,405	2,742	4,648	3,698	9,955	14,019	28,622
	1978	15,525	2,399	2,730	4,481	3,771	10,123	14,302	28,906
Branch	1977	3,581	497	606	1,069	784	2,260	3,208	6,537
	1978	3,698	501	619	1,059	778	2,318	3,278	6,655
Calhoun	1977	11,727	2,257	1,927	3,138	2,832	7,634	11,109	21,881
	1978	12,105	2,279	1,959	3,051	2,867	7,841	11,369	22,261
Cass	1977	3,633	500	635	1,043	807	2,387	3,188	6,618
	1978	3,681	502	619	965	797	2,406	3,193	6,564
Charlevoix	1977	2,171	257	427	512	464	1,446	1,873	3,831
	1978	2,262	279	426	512	472	1,510	1,929	3,951
Cheboygan	1977	2,152	317	475	520	506	1,535	1,915	3,970
	1978	2,246	311	492	467	523	1,586	1,986	4,039

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978 (cont.)

County	Year	Benefit category					Adult beneficiaries		Total
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, of parent	Men	Women	
Chippewa	1977	2,939	420	632	788	762	2,114	2,639	5,541
	1978	3,044	432	625	756	785	2,153	2,733	5,642
Clare	1977	3,041	508	645	762	576	2,259	2,511	5,532
	1978	3,108	517	642	754	613	2,302	2,578	5,634
Clinton	1977	2,693	346	647	792	727	1,845	2,568	5,205
	1978	2,747	343	641	762	754	1,861	2,624	5,247
Crawford	1977	951	163	199	253	176	708	781	1,742
	1978	965	173	202	229	179	721	798	1,748
Delta	1977	3,658	602	849	1,099	1,023	2,655	3,477	7,231
	1978	3,710	612	847	1,083	1,031	2,685	3,515	7,283
Dickinson	1977	3,328	423	689	580	906	2,328	3,018	5,926
	1978	3,422	409	686	570	920	2,358	3,079	6,007
Eaton	1977	4,364	529	930	1,232	1,146	2,911	4,058	8,201
	1978	4,455	545	907	1,148	1,147	2,941	4,113	8,202
Emmet	1977	2,432	290	472	588	577	1,600	2,171	4,359
	1978	2,470	285	463	577	617	1,596	2,239	4,412
Genesee	1977	26,639	6,740	6,174	11,334	8,746	19,997	28,302	59,633
	1978	27,043	6,782	6,069	10,879	8,915	20,039	28,770	59,688
Gladwin	1977	2,169	402	509	548	458	1,706	1,832	4,086
	1978	2,242	415	508	537	480	1,760	1,885	4,182
Gogebic	1977	2,930	469	678	738	953	2,203	2,827	5,768
	1978	2,991	472	692	699	930	2,244	2,841	5,784
Grand Traverse	1977	4,964	681	830	1,052	1,051	3,140	4,386	8,578
	1978	5,106	701	829	1,032	1,069	3,219	4,486	8,737
Gratiot	1977	3,372	465	733	860	979	2,306	3,243	6,409
	1978	3,431	454	728	810	1,005	2,304	3,314	6,428
Hillsdale	1977	3,681	540	789	915	857	2,548	3,319	6,782
	1978	3,765	531	768	900	855	2,548	3,371	6,819
Houghton	1977	4,450	607	1,082	898	1,270	3,386	4,023	8,307
	1978	4,540	585	1,095	867	1,271	3,424	4,067	8,358
Huron	1977	4,043	439	1,029	950	1,135	2,909	3,737	7,596
	1978	4,169	460	1,033	868	1,154	2,994	3,822	7,684

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978 (cont.)

County	Year	Benefit category					Adult beneficiaries		
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, of parent	Men	Women	Total
Ingham	1977	16,556	2,553	3,059	5,277	4,496	10,349	16,315	31,941
	1978	16,944	2,523	3,066	5,137	4,513	10,470	16,576	32,183
Ionia	1977	3,908	604	761	1,182	973	2,609	3,637	7,428
	1978	3,954	605	753	1,091	976	2,612	3,676	7,379
Iosco	1977	3,132	433	687	672	618	2,324	2,546	5,542
	1978	3,232	462	693	622	663	2,371	2,679	5,672
Iron	1977	2,194	362	542	419	671	1,756	2,013	4,188
	1978	2,268	361	537	379	690	1,789	2,067	4,235
Isabella	1977	2,510	404	543	1,065	691	1,756	2,392	5,213
	1978	2,603	385	531	1,020	681	1,808	2,392	5,220
Jackson	1977	11,507	1,832	2,038	3,231	2,948	7,331	10,994	21,556
	1978	11,841	1,862	2,049	3,052	2,956	7,489	11,219	21,760
Kalamazoo	1977	14,167	2,187	2,352	3,568	3,456	8,505	13,657	25,730
	1978	14,581	2,189	2,361	3,439	3,485	8,686	13,930	26,055
Kalkaska	1977	988	171	217	247	182	753	805	1,805
	1978	1,003	174	205	229	191	752	821	1,802
Kent	1977	34,504	4,589	6,078	8,647	8,522	21,021	32,672	62,340
	1978	35,410	4,664	6,073	8,305	8,559	21,400	33,306	63,011
Keweenaw	1977	419	71	121	67	99	352	358	777
	1978	447	63	129	63	108	365	382	810
Lake	1977	1,370	212	262	298	224	1,004	1,064	2,366
	1978	1,385	211	259	301	210	1,014	1,051	2,366
Lapeer	1977	3,489	647	746	1,539	917	2,525	3,274	7,338
	1978	3,516	643	737	1,502	968	2,517	3,347	7,366
Leelanau	1977	1,363	134	282	234	231	923	1,087	2,244
	1978	1,406	131	284	228	232	939	1,114	2,281
Lenawee	1977	7,210	1,121	1,329	1,831	1,873	4,545	6,988	13,364
	1978	7,361	1,124	1,329	1,715	1,892	4,617	7,089	13,421
Livingston	1977	4,376	688	899	1,412	1,105	3,018	4,050	8,480
	1978	4,554	689	913	1,392	1,162	3,101	4,217	8,710
Luce	1977	758	177	124	337	155	563	651	1,551
	1978	782	175	133	326	160	583	667	1,576

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978 (cont.)

County	Year	Benefit category					Adult beneficiaries		
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Mackinac	1977	1,291	191	258	326	266	922	1,084	2,332
	1978	1,346	171	271	323	275	940	1,123	2,386
Macomb	1977	35,432	6,823	7,501	12,477	12,836	24,994	37,598	75,069
	1978	37,536	6,946	7,705	12,061	13,350	25,961	39,576	77,598
Manistee	1977	2,924	361	474	511	620	1,899	2,480	4,890
	1978	2,984	371	483	506	612	1,924	2,526	4,956
Marquette	1977	5,012	877	1,094	1,443	1,391	3,678	4,696	9,817
	1978	5,056	853	1,083	1,347	1,413	3,657	4,748	9,752
Mason	1977	2,768	305	512	484	554	1,771	2,368	4,623
	1978	2,940	316	524	493	593	1,883	2,490	4,866
Mecosta	1977	2,590	413	511	738	543	1,828	2,229	4,795
	1978	2,698	410	530	686	568	1,870	2,336	4,892
Menominee	1977	2,805	416	629	644	737	2,047	2,540	5,231
	1978	2,850	399	619	627	758	2,043	2,583	5,253
Midland	1977	3,528	494	959	1,174	1,152	2,578	3,555	7,307
	1978	3,694	496	965	1,141	1,169	2,671	3,653	7,465
Missaukee	1977	980	156	255	228	230	748	873	1,849
	1978	1,019	161	251	203	226	788	869	1,860
Monroe	1977	7,438	1,369	1,787	2,572	2,236	5,209	7,621	15,402
	1978	7,601	1,402	1,803	2,502	2,321	5,257	7,870	15,629
Montcalm	1977	4,724	754	995	1,112	1,039	3,336	4,176	8,624
	1978	4,878	738	997	1,092	1,065	3,388	4,290	8,770
Montmorency	1977	1,317	213	298	244	268	1,009	1,087	2,340
	1978	1,428	225	319	255	283	1,089	1,166	2,510
Muskegon	1977	12,451	2,669	2,733	4,619	3,693	9,156	12,390	26,165
	1978	12,820	2,712	2,750	4,450	3,763	9,302	12,743	26,495
Newaygo	1977	3,210	483	658	783	704	2,280	2,775	5,838
	1978	3,234	474	656	747	715	2,273	2,806	5,826
Oakland	1977	60,366	8,849	12,728	17,393	19,514	39,333	62,124	118,850
	1978	62,477	8,859	12,787	16,489	19,993	40,087	64,029	120,605
Oceana	1977	2,289	360	473	638	486	1,660	1,948	4,246
	1978	2,319	384	471	651	521	1,671	2,024	4,346

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978 (cont.)

County	Year	Benefit category					Adult beneficiaries		
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Ogemaw	1977	2,025	397	479	520	417	1,639	1,679	3,838
	1978	2,069	417	478	540	441	1,649	1,756	3,945
Ontonagon	1977	1,159	215	286	325	332	942	1,050	2,317
	1978	1,225	198	293	315	333	974	1,075	2,364
Osceola	1977	2,088	363	490	548	482	1,570	1,853	3,971
	1978	2,156	359	481	547	499	1,607	1,888	4,042
Oscoda	1977	894	155	217	228	181	711	736	1,675
	1978	900	152	210	197	188	708	742	1,647
Otsego	1977	1,387	192	300	474	297	985	1,191	2,650
	1978	1,439	199	302	448	315	1,013	1,242	2,703
Ottawa	1977	9,649	1,072	2,276	2,268	2,574	6,407	9,164	17,839
	1978	10,029	1,120	2,319	2,167	2,606	6,589	9,485	18,241
Presque Isle	1977	1,604	269	447	416	440	1,288	1,472	3,176
	1978	1,665	275	454	397	438	1,334	1,498	3,229
Roscommon	1977	2,998	459	617	459	507	2,247	2,334	5,040
	1978	3,198	508	646	478	519	2,377	2,494	5,349
Saginaw	1977	14,474	2,914	3,475	5,829	4,839	10,609	15,093	31,531
	1978	14,906	2,950	3,505	5,532	4,915	10,772	15,504	31,808
St. Clair	1977	10,829	1,435	2,201	2,828	2,985	7,203	10,247	20,278
	1978	10,997	1,431	2,177	2,767	3,040	7,212	10,433	20,412
St. Joseph	1977	5,245	629	867	1,034	1,081	3,220	4,602	8,856
	1978	5,325	627	864	1,004	1,122	3,233	4,705	8,942
Sanilac	1977	4,018	496	966	949	1,057	2,921	3,616	7,486
	1978	4,180	488	979	905	1,077	3,018	3,706	7,629
Schoolcraft	1977	1,031	170	280	285	268	796	953	2,034
	1978	1,062	185	288	314	285	828	992	2,134
Shiawassee	1977	4,559	768	964	1,577	1,255	3,039	4,507	9,123
	1978	4,724	766	960	1,474	1,291	3,138	4,603	9,215
Tuscola	1977	3,979	648	1,023	1,476	1,210	2,983	3,877	8,336
	1978	4,104	673	1,040	1,427	1,227	3,065	3,979	8,471
Van Buren	1977	6,491	1,003	1,140	1,897	1,410	4,298	5,746	11,941
	1978	6,605	1,023	1,138	1,832	1,424	4,354	5,836	12,022

TABLE VII-20. NUMBER OF MONTHLY CASH BENEFICIARIES UNDER THE FEDERAL OLD AGE, SURVIVOR, DISABILITY, AND HEALTH INSURANCE PROGRAM (SOCIAL SECURITY) BY BENEFIT CATEGORY, SEX OF ADULTS, AND COUNTY: 31 DECEMBER 1977 AND 1978 (cont.)

County	Year	Benefit category					Adult beneficiaries		
		Retired worker[a]	Disabled worker	Wife or husband[b]	Children	Widow, widower, or parent	Men	Women	Total
Washtenaw	1977	11,868	2,345	1,965	4,034	2,880	7,348	11,710	23,092
	1978	12,084	2,365	1,950	3,861	2,944	7,437	11,906	23,204
Wayne	1977	179,628	36,642	34,018	63,259	58,292	126,719	181,861	371,839
	1978	179,855	36,035	33,231	60,406	57,764	125,256	181,629	367,291
Wexford	1977	2,483	414	519	652	598	1,758	2,256	4,666
	1978	2,585	434	526	623	607	1,833	2,319	4,775
MICHIGAN	1977	667,053	115,834	134,545	206,552	192,612	459,059	650,985	1,316,596
	1978	681,932	115,870	134,224	198,064	194,776	463,889	662,913	1,324,866

SOURCE: Social Security Administration, special release.

a. Includes "special" primary beneficiaries.

b. Includes "special" wife beneficiaries.

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Alcona	1978	1,313	466	1,097	5,154	1,279	189
	1979	1,601	557	1,197	6,013	1,347	212
Alger	1978	1,027	366	777	3,129	1,215	233
	1979	1,252	438	852	3,673	1,202	213
Allegan	1978	5,962	2,141	3,803	19,384	6,278	1,009
	1979	7,270	2,561	4,291	22,231	6,641	797
Alpena	1978	2,811	995	2,459	10,157	4,232	467
	1979	3,428	1,191	2,705	11,732	4,572	480
Antrim	1978	1,768	629	1,214	6,584	1,645	288
	1979	2,156	753	1,385	7,572	1,844	276
Arenac	1978	1,490	538	1,342	5,375	1,719	319
	1979	1,817	644	1,390	6,288	1,791	272
Baraga	1978	1,058	377	766	3,318	1,100	215
	1979	1,290	451	795	3,774	1,166	139
Barry	1978	3,568	1,278	2,155	10,701	3,406	417
	1979	4,350	1,529	2,488	12,289	3,487	535
Bay	1978	9,645	3,449	6,342	30,400	12,950	1,464
	1979	11,761	4,127	6,813	34,560	13,685	1,475
Benzie	1978	1,313	471	817	4,353	1,035	213
	1979	1,601	564	932	4,974	1,038	196
Berrien	1978	16,487	5,942	10,689	51,028	18,151	3,352
	1979	20,104	7,109	11,967	57,725	19,055	3,281
Branch	1978	3,784	1,373	2,255	11,995	4,040	682
	1979	4,614	1,642	2,498	13,798	4,186	560
Calhoun	1978	13,429	4,836	9,809	40,653	13,610	2,649
	1979	16,375	5,786	10,811	46,149	14,440	2,613
Cass	1978	3,900	1,406	2,316	11,796	3,960	631
	1979	4,755	1,682	2,505	13,557	4,060	605
Charlevoix	1978	2,247	804	1,199	7,201	2,136	270
	1979	2,740	962	1,350	8,278	2,175	183
Cheboygan	1978	2,077	743	1,434	7,077	2,215	327
	1979	2,533	889	1,502	8,186	2,385	395

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Chippewa	1978	3,081	1,101	1,878	9,394	3,457	592
	1979	3,757	1,317	1,968	10,683	3,637	619
Clare	1978	2,317	835	2,454	10,056	2,907	380
	1979	2,825	999	2,869	11,536	3,175	394
Clinton	1978	3,035	1,079	1,621	8,635	3,342	315
	1979	3,701	1,291	1,653	9,682	3,675	252
Crawford	1978	687	244	759	3,171	899	87
	1979	838	292	899	3,626	975	27
Delta	1978	4,564	1,628	2,671	11,370	4,777	736
	1979	5,565	1,947	2,983	13,149	4,983	700
Dickinson	1978	4,101	1,470	1,764	10,582	3,745	315
	1979	5,000	1,758	1,994	12,008	3,962	303
Eaton	1978	4,927	1,769	2,452	13,940	5,298	577
	1979	6,008	2,117	2,705	15,752	5,679	514
Emmet	1978	2,402	854	1,238	7,902	2,759	304
	1979	2,929	1,022	1,323	9,042	2,926	283
Genesee	1978	30,233	10,789	34,575	94,788	45,492	6,606
	1979	36,865	12,908	37,993	106,632	48,199	6,473
Gladwin	1978	1,738	624	2,028	7,271	2,064	320
	1979	2,119	746	2,172	8,472	2,259	366
Gogebic	1978	3,660	1,303	2,087	9,487	3,787	420
	1979	4,463	1,559	2,269	10,804	3,765	397
Grand Traverse	1978	4,842	1,730	2,870	16,568	5,039	911
	1979	5,904	2,070	3,274	18,946	5,368	903
Gratiot	1978	4,487	1,619	2,045	10,953	4,192	598
	1979	5,471	1,937	2,164	12,460	4,394	612
Hillsdale	1978	4,286	1,553	2,367	12,101	3,816	711
	1979	5,226	1,858	2,641	13,703	4,041	618
Houghton	1978	5,128	1,833	2,520	14,402	4,946	907
	1979	6,253	2,193	2,640	16,246	5,305	921
Huron	1978	4,579	1,633	1,921	13,262	4,630	713
	1979	5,584	1,954	2,111	15,080	4,816	692

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Ingham	1978	19,175	6,843	11,955	60,901	23,121	6,961
	1979	23,381	8,188	12,906	69,603	24,164	5,139
Ionia	1978	4,927	1,764	2,833	12,837	4,698	708
	1979	6,008	2,110	3,055	14,615	4,884	430
Iosco	1978	2,610	937	2,225	10,471	2,835	261
	1979	3,183	1,121	2,495	12,150	2,966	268
Iron	1978	2,502	896	1,573	7,294	2,565	350
	1979	3,051	1,072	1,708	8,326	2,654	348
Isabella	1978	2,711	970	1,873	8,673	3,493	740
	1979	3,305	1,161	2,003	9,886	3,666	659
Jackson	1978	13,336	4,780	8,611	40,513	14,549	1,746
	1979	16,262	5,719	9,462	46,206	15,056	1,665
Kalamazoo	1978	15,939	5,684	9,413	50,436	17,085	2,711
	1979	19,436	6,801	10,229	57,507	18,066	2,454
Kalkaska	1978	826	297	763	3,213	833	168
	1979	1,008	355	884	3,715	938	140
Kent	1978	39,129	14,000	20,334	120,363	41,778	5,519
	1979	47,713	16,750	22,262	136,703	44,032	5,350
Keweenaw	1978	378	136	277	1,420	374	66
	1979	461	163	278	1,648	389	32
Lake	1978	1,220	446	883	4,135	899	332
	1979	1,488	534	1,052	4,789	927	371
Lapeer	1978	3,954	1,425	3,203	12,030	5,611	828
	1979	4,821	1,705	3,634	13,673	5,958	826
Leelanau	1978	1,328	474	582	4,477	1,076	99
	1979	1,620	567	619	5,176	1,132	90
Lenawee	1978	7,892	2,842	5,095	24,055	8,773	1,051
	1979	9,624	3,400	5,613	27,252	9,290	1,077
Livingston	1978	3,846	1,378	3,445	15,731	6,369	547
	1979	4,689	1,649	3,681	18,300	6,788	525
Luce	1978	911	324	730	2,491	836	287
	1979	1,111	388	911	2,801	886	299

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Mackinac	1978	1,220	441	772	4,134	1,229	226
	1979	1,488	527	869	4,768	1,304	245
Macomb	1978	28,804	10,262	33,316	129,173	64,563	4,208
	1979	35,123	12,278	36,751	152,178	69,369	4,044
Manistee	1978	3,058	1,093	1,651	9,379	2,556	305
	1979	3,729	1,307	1,810	10,670	2,692	286
Marquette	1978	6,070	2,154	4,021	16,629	6,600	705
	1979	7,401	2,578	4,308	18,827	7,022	757
Mason	1978	3,097	1,112	1,341	9,054	2,501	37
	1979	3,776	1,330	1,494	10,333	2,694	379
Mecosta	1978	2,541	918	1,903	8,593	2,536	432
	1979	3,098	1,098	2,110	9,798	2,763	442
Menominee	1978	3,236	1,162	1,702	8,882	3,043	388
	1979	3,945	1,390	1,831	9,945	3,193	376
Midland	1978	3,282	1,178	2,430	13,403	5,901	587
	1979	4,002	1,410	2,612	15,594	6,285	618
Missaukee	1978	934	338	714	3,177	906	197
	1979	1,139	405	801	3,657	908	179
Monroe	1978	7,969	2,853	7,057	25,840	11,531	1,136
	1979	9,718	3,414	7,869	29,427	12,249	1,220
Montcalm	1978	5,020	1,813	3,232	15,460	4,775	915
	1979	6,121	2,170	3,428	17,535	5,160	1,087
Montmorency	1978	965	344	1,020	4,658	1,173	117
	1979	1,177	411	1,179	5,463	1,216	122
Muskegon	1978	13,831	4,908	12,340	44,617	18,138	2,778
	1979	16,865	5,872	13,865	51,227	19,081	2,714
Newaygo	1978	3,112	1,129	2,055	10,339	3,087	604
	1979	3,795	1,350	2,312	11,774	3,370	571
Oakland	1978	58,080	20,785	44,955	237,080	102,163	6,465
	1979	70,821	24,868	48,962	271,000	107,924	6,771
Oceana	1978	2,463	885	1,818	7,155	2,236	383
	1979	3,004	1,058	1,916	8,088	2,386	369

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Ogemaw	1978	1,730	621	1,997	6,494	1,940	389
	1979	2,109	743	2,244	7,439	2,140	343
Ontonagon	1978	1,112	397	905	3,894	1,345	249
	1979	1,356	474	921	4,475	1,450	221
Osceola	1978	2,201	790	1,700	6,733	1,977	378
	1979	2,684	945	1,873	7,582	2,205	344
Oscoda	1978	741	272	716	2,872	835	128
	1979	904	325	793	3,171	903	110
Otsego	1978	1,112	399	988	4,799	1,614	265
	1979	1,356	478	1,019	5,596	1,754	358
Ottawa	1978	10,093	3,599	5,153	34,940	12,120	858
	1979	12,307	4,306	5,688	40,524	12,586	854
Presque Isle	1978	1,637	582	1,212	5,466	1,877	306
	1979	1,996	697	1,325	6,266	1,994	305
Roscommon	1978	1,907	685	2,340	10,516	2,132	257
	1979	2,326	819	2,683	12,152	n.a.	n.a.
Saginaw	1978	17,105	6,106	14,378	51,474	24,187	3,624
	1979	20,857	7,305	15,663	59,389	25,482	3,592
St. Clair	1978	12,217	4,387	6,061	34,836	13,432	1,588
	1979	14,897	5,248	6,825	39,518	14,154	1,816
St. Joseph	1978	5,406	1,960	2,736	17,855	5,160	667
	1979	6,592	2,345	3,048	20,186	5,594	653
Sanilac	1978	4,595	1,661	2,276	13,475	4,501	647
	1979	5,603	1,987	2,501	15,586	4,838	589
Schoolcraft	1978	1,220	438	800	3,479	1,246	324
	1979	1,488	524	878	3,910	1,314	304
Shiawassee	1978	5,568	1,994	3,651	15,347	6,343	796
	1979	6,789	2,385	4,086	17,700	6,755	829
Tuscola	1978	4,919	1,780	3,168	13,674	5,867	898
	1979	5,998	2,130	3,522	15,721	6,096	895
Van Buren	1978	7,081	2,540	4,696	20,736	6,556	1,390
	1979	8,635	3,039	5,007	23,608	6,796	1,433

TABLE VII-21. SOCIAL SECURITY INSURANCE TRUST FUND DISBURSEMENTS TO MICHIGAN RESIDENTS, BY FUND AND COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(Thousands of dollars)

County	Year	Medicare: hospital	Medicare: supplemental	Disability	Retirement	Survivors	Supplemental income
Washtenaw	1978	13,692	4,908	10,813	42,749	16,124	2,325
	1979	16,695	5,872	11,950	48,762	17,082	2,201
Wayne	1978	257,060	92,813	167,324	624,400	282,997	53,993
	1979	313,455	111,043	179,786	696,966	292,418	53,404
Wexford	1978	2,525	901	1,993	8,374	2,695	480
	1979	3,079	1,078	2,027	9,432	2,840	507
TOTAL	1978	772,231	277,284	540,757	2,330,914	940,900	138,975
	1979	941,646	331,750	589,888	2,649,239	988,542	133,580

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1979 (Washington, D.C.: 1980), county summaries section.

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980

County	1979			1980		
	Number of recipients	Payments		Number of recipients	Payments	
		Total ($000)	Average per recipient		Total ($000)	Average per recipient
Alcona	193	24.9	$ 129.13	198	29.4	$ 148.65
Alger	215	30.7	142.94	204	33.8	165.54
Allegan	899	123.2	137.07	855	127.2	148.72
Alpena	470	68.1	144.85	449	73.4	163.47
Antrim	275	42.0	152.61	280	48.7	173.99
Arenac	278	41.6	149.52	268	44.5	166.01
Baraga	229	29.0	126.54	222	31.3	141.09
Barry	383	60.5	157.96	370	62.9	170.02
Bay	1,255	187.4	149.30	1,267	208.5	164.55
Benzie	196	35.5	181.15	197	37.2	188.98
Berrien	2,922	422.6	144.63	2,896	455.4	157.27
Branch	918	76.6	83.46	830	77.2	93.00
Calhoun	2,306	377.7	163.78	2,244	405.1	180.54
Cass	547	78.4	143.39	536	80.9	150.92
Charlevoix	292	36.5	125.12	292	39.1	134.12
Cheboygan	334	42.7	127.82	325	45.5	139.12
Chippewa	598	96.2	160.92	620	108.8	175.45
Clare	330	45.0	136.37	343	50.7	147.69
Clinton	285	38.6	135.52	262	38.4	146.55
Crawford	98	12.9	131.66	102	12.7	124.67
Delta	761	101.4	133.28	737	109.9	149.16
Dickinson	367	38.8	105.76	366	41.8	114.08
Eaton	553	87.5	158.26	530	90.6	170.97
Emmet	311	45.0	144.84	312	50.3	161.20
Genesee	5,114	810.5	158.48	5,204	902.6	173.44
Gladwin	320	46.9	146.56	316	52.6	166.38
Gogebic	470	53.1	112.97	473	57.8	122.15
Grand Traverse	820	151.5	184.74	783	156.8	200.28
Gratiot	595	92.6	155.60	622	105.6	169.72
Hillsdale	591	103.6	175.22	558	106.6	191.13
Houghton	877	112.0	127.69	826	116.7	141.30
Huron	602	104.9	174.33	606	113.4	187.09
Ingham	2,661	410.3	154.18	2,669	444.8	166.66
Ionia	627	97.3	155.25	602	104.0	172.84
Iosco	271	29.8	109.81	293	35.8	122.29

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980 (cont.)

County	1979			1980		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Iron	375	46.3	$ 123.50	355	45.9	$ 129.29
Isabella	906	83.9	92.63	866	89.8	103.74
Jackson	1,586	246.2	155.26	1,590	272.2	171.19
Kalamazoo	2,378	340.3	143.09	2,430	387.5	159.47
Kalkaska	162	25.6	158.01	159	27.6	173.48
Kent	4,761	745.5	156.59	4,838	827.9	171.11
Keweenaw	62	6.9	111.58	60	6.3	104.81
Lake	313	36.3	116.06	304	39.2	129.03
Lapeer	1,022	126.3	123.55	949	130.8	137.80
Leelanau	101	12.0	118.69	100	13.0	129.80
Lenawee	948	160.0	168.82	950	174.5	183.68
Livingston	603	73.6	121.99	594	80.8	136.08
Luce	348	41.6	119.53	354	46.5	131.40
Mackinac	245	30.5	124.56	231	31.5	136.26
Macomb	3,747	529.3	141.26	3,841	600.8	156.41
Manistee	302	36.7	121.62	291	39.3	134.98
Marquette	716	90.2	125.95	734	105.2	143.33
Mason	376	50.7	134.82	376	54.3	144.49
Mecosta	404	54.0	133.62	398	59.8	150.17
Menominee	418	46.0	110.07	408	50.7	124.36
Midland	500	74.7	149.44	521	88.2	169.23
Missaukee	186	31.3	168.30	172	32.6	189.26
Monroe	998	129.8	130.09	995	138.3	138.97
Montcalm	782	122.9	157.19	776	138.1	177.93
Montmorency	146	16.3	111.49	147	17.7	120.14
Muskegon	2,527	341.1	135.00	2,505	371.3	148.21
Newaygo	573	73.3	127.95	547	76.0	138.97
Oakland	5,589	835.0	149.40	5,637	941.8	167.07
Oceana	367	46.8	127.52	360	50.0	138.84
Ogemaw	422	49.2	116.56	385	48.0	124.65
Ontonagon	253	32.2	127.29	243	33.4	137.62
Osceola	356	51.6	145.03	368	61.8	168.01
Oscoda	120	14.8	123.65	114	14.7	128.93
Otsego	286	39.9	139.63	286	44.5	155.73
Ottawa	756	125.3	165.75	759	138.9	183.02

TABLE VII-22. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980 (cont.)

County	1979			1980		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Presque Isle	311	41.1	$ 132.03	316	48.4	$ 153.34
Roscommon	245	37.9	154.70	262	44.5	170.09
Saginaw	2,679	430.5	160.70	2,735	482.8	176.53
St. Clair	1,431	200.6	140.15	1,443	225.6	156.32
St. Joseph	607	86.2	142.05	587	90.9	154.89
Sanilac	568	100.0	176.00	550	104.6	190.18
Schoolcraft	276	50.6	183.18	274	53.2	194.32
Shiawassee	738	111.8	151.50	723	120.2	166.27
Tuscola	996	118.5	118.93	997	129.8	130.17
Van Buren	1,251	187.0	149.46	1,253	201.8	161.05
Washtenaw	1,829	299.8	163.89	1,836	317.7	173.07
Wayne	42,378	6,149.0	145.10	42,017	6,698.1	159.41
Wexford	438	64.5	147.35	452	74.2	164.09
TOTAL	115,344	16,799.0	145.64	114,745	18,370.1	160.10

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1979, Table 17, and January 1980, Table 21.

NOTE: Social Security Income comprises programs formerly under aid to the blind, aid to the aged, and aid to the disabled. The dollar amounts indicated include the federal payment as well as state supplementation.

TABLE VII-23. MONTHLY AVERAGE NUMBER OF MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS, BY COUNTY, FISCAL YEARS: 1978 AND 1979

County	Number		County	Number	
	1978	1979		1978	1979
Alcona	339	355	Lake	637	657
Alger	389	375	Lapeer	2,788	2,651
Allegan	2,757	2,711	Leelanau	262	255
Alpena	1,185	1,260	Lenawee	2,638	2,586
Antrim	581	623	Livingston	1,999	1,946
Arenac	708	724	Luce	617	600
Baraga	435	426	Mackinac	399	418
Barry	1,480	1,426	Macomb	14,028	14,202
Bay	4,523	4,540	Manistee	726	780
Benzie	476	505	Marquette	1,797	1,838
Berrien	8,764	9,082	Mason	835	908
Branch	2,183	2,116	Mecosta	1,181	1,213
Calhoun	7,274	7,421	Menominee	721	738
Cass	1,729	1,703	Midland	2,065	2,185
Charlevoix	591	637	Missaukee	427	459
Cheboygan	859	898	Monroe	3,332	3,469
Chippewa	1,245	1,348	Montcalm	1,909	1,856
Clare	1,266	1,344	Montmorency	291	333
Clinton	930	943	Muskegon	9,176	9,218
Crawford	416	424	Newaygo	1,690	1,641
Delta	1,548	1,590	Oakland	20,596	20,484
Dickinson	671	692	Oceana	1,109	1,087
Eaton	1,621	1,666	Ogemaw	1,047	1,078
Emmet	716	719	Ontonagon	500	509
Genesee	20,750	21,237	Osceola	777	765
Gladwin	885	920	Oscoda	308	335
Gogebic	835	856	Otsego	558	575
Grand Traverse	1,627	1,657	Ottawa	2,555	2,479
Gratiot	1,592	1,651	Presque Isle	440	465
Hillsdale	1,421	1,398	Roscommon	690	719
Houghton	1,653	1,782	Saginaw	10,851	11,075
Huron	1,045	1,046	St. Clair	5,035	5,119
Ingham	11,029	10,713	St. Joseph	1,783	1,888
Ionia	2,009	1,943	Sanilac	1,279	1,371
Iosco	788	868	Schoolcraft	480	498
Iron	681	654	Shiawassee	2,043	2,039
Isabella	2,406	2,422	Tuscola	2,195	2,720
Jackson	5,724	5,596	Van Buren	4,022	4,251
Kalamazoo	7,102	7,077	Washtenaw	6,628	6,353
Kalkaska	495	524	Wayne	165,180	165,945
Kent	14,835	14,589	Wexford	1,153	1,235
Keweenaw	82	86	Michigan	394,382	397,020

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid), Fiscal Year 1978 (Lansing: 1979), Table 7, and Medical Assistance (Medicaid), Fiscal Year 1979 (Lansing: 1980), Table 6.

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980

County	1979			1980		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Alcona	888	61.2	$ 68.94	1,128	89.9	$ 79.75
Alger	865	67.5	78.05	910	81.7	89.79
Allegan	5,695	469.1	82.37	5,812	564.1	97.05
Alpena	2,615	245.1	93.74	3,298	346.1	104.94
Antrim	1,046	76.1	72.78	1,357	104.4	76.96
Arenac	1,673	141.2	84.41	2,233	205.0	91.80
Baraga	810	62.7	77.46	980	87.5	89.34
Barry	2,988	266.4	89.15	3,493	340.1	97.38
Bay	9,083	822.0	90.50	10,546	1,203.6	114.13
Benzie	1,041	75.8	72.78	1,135	94.3	83.09
Berrien	20,489	1,929.3	94.16	25,363	2,612.6	103.01
Branch	2,425	200.1	82.52	3,483	329.9	94.07
Calhoun	15,277	1,460.1	95.57	17,026	1,962.6	115.27
Cass	3,682	306.2	83.17	5,395	499.4	92.56
Charlevoix	1,141	85.3	74.76	1,544	134.8	87.28
Cheboygan	2,096	146.8	70.05	2,480	195.6	78.86
Chippewa	2,751	228.1	82.92	3,495	311.0	88.99
Clare	2,939	257.5	87.61	3,664	366.0	99.88
Clinton	2,095	172.7	82.42	2,542	271.3	106.72
Crawford	1,210	90.5	74.81	1,588	129.3	81.43
Delta	2,659	222.9	83.83	3,367	321.8	95.58
Dickinson	1,142	76.3	66.84	1,553	128.8	82.94
Eaton	3,136	268.8	85.72	4,126	433.2	105.00
Emmet	1,306	102.1	78.21	1,852	145.7	78.67
Genesee	46,360	4,928.7	106.31	55,378	6,806.7	122.93
Gladwin	2,125	170.5	80.21	2,604	244.7	93.99
Gogebic	2,012	156.1	77.58	2,165	163.7	75.65
Grand Traverse	2,330	192.4	82.56	3,074	295.4	96.11
Gratiot	3,002	246.4	82.09	3,873	163.7	91.51
Hillsdale	2,608	210.2	80.61	3,950	295.4	84.69
Houghton	3,758	324.7	86.41	3,942	357.9	90.78
Huron	1,973	150.8	76.43	2,467	206.1	83.56
Ingham	24,239	2,651.8	109.40	26,658	3,343.5	125.42
Ionia	3,670	355.2	96.78	4,098	433.9	105.87
Iosco	2,087	167.8	80.41	3,459	279.7	80.85

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980 (cont.)

County	1979			1980		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Iron	1,046	71.9	$ 68.73	1,262	94.6	$ 74.94
Isabella	3,732	343.5	92.05	4,483	464.5	103.62
Jackson	10,058	971.4	96.58	11,818	1,355.6	114.71
Kalamazoo	15,271	1,540.3	100.87	17,404	2,011.6	115.59
Kalkaska	1,337	106.7	79.83	1,587	132.0	83.16
Kent	27,995	2,713.0	96.91	31,798	3,448.2	108.44
Keweenaw	197	13.4	67.91	226	15.8	70.03
Lake	1,355	105.0	78.63	1,678	149.7	89.19
Lapeer	4,157	327.6	78.81	5,393	511.7	94.89
Leelanau	444	29.9	67.41	618	45.0	72.76
Lenawee	5,599	527.1	94.13	7,257	733.2	101.04
Livingston	3,375	324.2	96.05	4,258	479.7	112.67
Luce	644	42.5	66.06	761	58.6	77.02
Mackinac	1,048	75.8	72.37	1,194	90.4	75.76
Macomb	26,567	2,610.7	98.27	32,699	3,693.6	112.96
Manistee	1,483	112.1	75.59	1,899	189.6	99.83
Marquette	3,670	365.8	99.67	5,317	539.5	101.47
Mason	1,864	135.0	72.44	2,564	203.7	79.44
Mecosta	2,710	220.7	81.43	3,335	303.3	90.94
Menominee	1,828	136.5	74.65	2,264	199.5	88.10
Midland	4,626	438.7	94.84	5,300	556.6	105.02
Missaukee	1,021	72.2	70.73	1,096	85.8	78.27
Monroe	6,996	688.5	98.42	9,525	1,030.1	108.15
Montcalm	3,570	283.1	79.30	4,155	364.6	87.75
Montmorency	1,001	74.7	74.59	1,205	103.9	86.21
Muskegon	18,639	1,700.4	91.23	20,696	2,154.5	104.10
Newaygo	3,708	273.2	73.69	4,321	359.5	83.19
Oakland	38,763	4,152.2	107.12	43,227	5,239.7	121.21
Oceana	2,408	192.3	79.87	2,776	254.1	91.53
Ogemaw	1,912	159.7	83.51	2,456	220.1	89.63
Ontonagon	973	75.4	77.50	957	79.6	83.16
Osceola	1,926	140.8	73.12	2,216	187.0	84.40
Oscoda	636	53.0	83.30	889	85.7	96.41
Otsego	757	54.1	71.51	1,079	86.6	80.26
Ottawa	4,293	355.5	82.81	5,169	541.3	104.72

TABLE VII-24. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS TO PERSONS NOT OTHERWISE RECEIVING PUBLIC ASSISTANCE IN MICHIGAN, BY COUNTY: JANUARY 1979 AND 1980 (cont.)

	1979			1980		
		Payments			Payments	
County	Number of recipients	Total ($000)	Average per recipients	Number of recipients	Total ($000)	Average per recipient
Presque Isle	850	58.9	$ 69.35	981	83.0	$ 84.63
Roscommon	1,493	126.5	84.70	2,085	205.0	98.34
Saginaw	26,212	2,776.8	105.94	29,998	3,781.5	126.06
St. Clair	11,921	1,143.1	95.89	13,415	1,589.8	118.51
St. Joseph	3,873	341.1	88.07	5,386	524.8	97.44
Sanilac	3,249	270.4	82.24	4,134	376.8	91.14
Schoolcraft	841	62.8	74.69	932	77.1	82.78
Shiawassee	4,361	377.4	86.55	5,373	546.4	101.69
Tuscola	3,607	314.8	87.26	4,759	461.1	96.89
Van Buren	9,648	876.6	90.86	10,798	1,080.6	100.07
Washtenaw	14,112	1,664.2	117.93	14,924	1,936.2	129.73
Wayne	337,513	40,488.3	119.96	392,670	52,517.4	133.74
Wexford	2,170	164.8	75.93	2,988	271.7	90.92
TOTAL	808,655	85,541.5	105.78	951,363	113,300.8	119.09

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1979 and January 1980, Table 2.

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Alcona	1978	$ 113,347	$ 38,264	$ 24,336	$ 405,583	$ 64,040	$ 57,679	$ 753,771
	1979	133,756	38,454	33,531	352,572	70,882	62,695	755,983
Alger	1978	198,397	766	11,838	310,615	76,662	50,835	707,990
	1979	228,001	969	22,015	306,623	79,742	58,508	772,228
Allegan	1978	1,231,561	111,972	1,413,670	862,156	592,848	400,271	5,268,019
	1979	1,572,469	113,955	1,688,860	1,145,075	629,666	455,104	6,223,608
Alpena	1978	563,503	124,010	580,974	221,652	293,432	175,199	2,164,783
	1979	523,174	209,934	645,112	262,452	309,482	206,875	2,419,764
Antrim	1978	234,676	5,564	269,699	307,134	121,723	81,174	1,100,319
	1979	215,862	31,349	146,152	458,433	139,235	97,592	1,182,939
Arenac	1978	365,163	8,935	202,804	114,605	181,567	93,568	1,093,793
	1979	417,769	4,483	221,082	165,139	190,445	107,844	1,243,272
Baraga	1978	177,200	5,879	378,679	---	66,962	72,629	758,014
	1979	231,638	32,395	318,061	3,285	66,367	73,555	786,028
Barry	1978	756,313	51,649	845,953	622,257	331,601	199,123	3,142,638
	1979	719,442	55,852	842,661	669,987	342,692	200,413	3,160,576
Bay	1978	2,407,529	263,977	1,743,025	976,597	1,352,580	634,783	8,137,211
	1979	3,237,561	282,923	1,735,575	1,360,042	1,524,080	694,613	9,723,279
Benzie	1978	269,500	17,846	161,611	139,321	115,698	77,999	862,939
	1979	331,734	346	243,652	94,245	139,160	82,806	992,624
Berrien	1978	4,424,882	317,990	2,479,501	1,930,678	1,818,588	1,134,125	14,331,740
	1979	5,729,760	541,279	2,778,569	2,139,623	2,165,040	1,230,940	17,115,141
Branch	1978	712,132	19,215	4,232,151	12,760,839	296,583	206,415	18,528,213
	1979	715,449	59,517	2,793,217	16,146,918	304,832	199,146	20,557,472
Calhoun	1978	4,623,487	497,477	2,206,170	1,342,725	2,242,901	1,046,343	13,617,799
	1979	5,125,187	577,868	2,050,710	1,935,072	2,292,428	1,152,369	14,972,445
Cass	1978	810,640	56,370	430,925	774,671	361,323	207,305	2,976,012
	1979	1,171,214	49,568	589,707	813,931	420,687	230,178	3,659,769
Charlevoix	1978	186,359	58,097	187,982	335,440	97,202	96,277	1,043,131
	1979	237,722	19,373	220,868	368,066	113,362	107,150	1,172,074
Cheboygan	1978	432,379	49,063	135,256	317,512	185,653	134,891	1,415,196
	1979	454,694	109,890	219,770	329,905	196,893	135,880	1,707,821

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Chippewa	1978	$ 610,521	$ 44,598	$ 902,829	$ 234,184	$ 216,506	$ 201,740	$2,385,888
	1979	1,077,181	57,277	883,302	278,760	279,595	218,274	3,017,609
Clare	1978	539,252	28,095	649,216	326,385	341,575	192,290	2,295,104
	1979	752,055	10,786	773,287	356,508	394,783	228,069	2,771,686
Clinton	1978	383,748	57,503	3,535	454,383	219,399	113,457	1,409,083
	1979	426,452	68,995	21,951	494,354	235,182	171,813	1,550,611
Crawford	1978	198,056	---	94,582	---	96,537	51,413	523,364
	1979	240,062	42,912	128,797	---	99,792	55,705	670,401
Delta	1978	577,775	69,162	1,334,833	860,297	293,259	286,334	3,609,659
	1979	590,905	34,499	1,557,028	926,279	295,465	297,493	3,909,059
Dickinson	1978	220,090	53,225	389,775	460,406	97,721	103,249	1,412,050
	1979	253,526	33,453	434,471	552,921	97,789	108,934	1,595,200
Eaton	1978	600,810	127,840	503,573	1,056,469	350,421	263,725	3,167,343
	1979	831,659	220,103	607,502	1,220,863	369,900	300,783	3,866,067
Emmet	1978	267,634	44,029	315,728	791,505	129,739	112,099	1,757,394
	1979	401,895	123,374	305,043	829,928	130,077	112,181	2,011,902
Genesee	1978	12,772,421	621,752	5,190,456	2,495,827	7,804,836	3,253,088	37,214,709
	1979	16,035,563	898,142	6,026,172	2,398,292	8,562,909	3,641,408	43,114,522
Gladwin	1978	487,506	8,813	189,016	11,868	258,527	133,081	1,274,575
	1979	500,783	10,630	296,531	17,830	267,064	162,410	1,456,469
Gogebic	1978	316,180	12,641	542,195	613,895	100,468	130,074	1,872,303
	1979	379,229	17,521	646,779	754,003	133,709	142,136	2,239,459
Grd. Traverse	1978	760,221	2,327,439	1,977,032	567,487	336,290	258,147	6,486,240
	1979	697,338	2,087,684	2,087,684	673,697	353,103	287,860	6,567,768
Gratiot	1978	501,214	38,215	511,464	1,257,819	308,805	253,897	3,052,987
	1979	595,397	185,349	513,863	1,362,897	357,540	260,723	3,498,960
Hillsdale	1978	603,344	26,305	517,786	991,790	239,149	219,885	2,865,174
	1979	778,788	55,241	870,315	603,710	270,716	247,671	3,106,879
Houghton	1978	706,417	40,738	1,410,548	933,949	275,865	187,610	3,797,528
	1979	738,192	42,708	1,408,871	1,068,658	318,775	224,033	4,096,607
Huron	1978	433,274	11,342	525,095	598,524	181,376	186,139	2,083,752
	1979	569,767	26,396	593,343	602,512	230,971	208,494	2,399,016

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

County	Year	Inpatient hospital		Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
		General hospital	Mental hospital					
Ingham	1978	$4,948,334	$470,351	$2,742,885	$1,812,712	$2,866,946	$1,210,818	$16,787,789
	1979	5,633,264	511,452	3,221,729	2,164,373	2,887,881	1,293,751	18,738,189
Ionia	1978	888,226	33,288	1,268,351	16,655	493,572	292,818	3,349,135
	1979	1,053,193	1,663	1,266,296	47,443	545,099	297,211	3,558,917
Iosco	1978	401,490	37,011	242,307	226,240	176,550	104,761	1,350,027
	1979	378,178	152,732	667,557	190,715	192,868	136,506	1,917,809
Iron	1978	318,591	43,426	264,251	1,292,449	90,561	114,949	2,221,579
	1979	448,754	13,164	347,402	1,289,346	107,489	138,763	2,457,276
Isabella	1978	918,223	18,263	5,598,891	8,086,356	495,541	239,932	15,693,822
	1979	1,038,289	23,534	3,306,530	11,877,116	547,040	287,352	17,452,321
Jackson	1978	3,360,488	368,902	1,326,997	2,611,795	1,552,153	837,701	11,231,555
	1979	3,717,493	533,084	1,395,952	3,009,506	1,787,831	890,237	12,584,538
Kalamazoo	1978	3,304,870	3,135,142	4,640,321	1,796,270	1,500,331	840,579	17,153,105
	1979	3,948,364	3,199,429	4,885,909	2,133,503	1,503,848	910,733	18,882,735
Kalkaska	1978	270,941	4,290	39,889	60,154	119,184	63,710	650,913
	1979	361,270	17,868	39,174	107,532	123,087	65,816	817,973
Kent	1978	6,381,461	870,825	5,979,994	4,934,042	3,314,521	1,832,424	26,577,587
	1979	6,807,548	1,364,252	8,053,848	3,919,608	3,215,745	2,047,826	28,869,142
Keweenaw	1978	32,418	2,384	---	---	15,979	12,425	75,902
	1979	31,769	5,765	---	---	18,269	13,007	84,164
Lake	1978	250,139	1,549	9,755	5,500	106,875	95,434	594,540
	1979	275,769	---	32,675	30,884	113,817	106,768	714,749
Lapeer	1978	932,792	58,218	1,884,392	17,923,294	509,199	282,461	21,875,592
	1979	999,419	131,717	1,221,218	19,285,827	549,493	307,480	22,836,538
Leelanau	1978	118,251	2,710	159,531	388,869	49,538	33,037	798,409
	1979	162,157	1,969	135,807	323,033	59,519	31,614	760,644
Lenawee	1978	1,358,961	216,768	1,010,418	956,657	522,652	299,119	4,828,773
	1979	1,498,994	337,990	1,098,217	1,044,627	535,725	310,954	5,370,547
Livingston	1978	714,480	78,140	2,263,505	5,620,431	398,213	237,068	9,674,537
	1979	1,108,093	53,921	1,442,695	6,765,939	427,337	258,705	10,436,976
Luce	1978	243,569	259,708	2,869	5,928,007	88,822	59,624	6,637,511
	1979	216,643	5,765	6,422	6,512,903	77,420	56,618	6,935,189

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Mackinac	1978	$ 173,786	$ - 2,908	$ 102,960	$ 151,719	$ 85,027	$ 55,303	$ 628,005
	1979	280,889	14,188	114,161	171,769	90,404	58,088	793,967
Macomb	1978	7,052,535	658,858	8,195,955	6,850,029	4,655,592	2,113,068	32,698,668
	1979	8,486,987	1,247,529	8,552,661	8,538,259	4,810,946	2,306,298	37,368,106
Manistee	1978	267,874	---	374,176	798,142	115,688	90,167	1,787,258
	1979	394,146	9,003	467,669	738,968	129,304	101,047	1,996,065
Marquette	1978	699,064	57,508	821,925	949,604	410,697	229,614	3,461,033
	1979	994,804	126,051	1,239,947	875,920	452,934	285,972	4,332,484
Mason	1978	252,759	13,228	979,592	104,116	126,349	119,003	1,753,162
	1979	264,210	30,562	1,122,233	166,385	164,426	131,464	2,064,163
Mecosta	1978	499,596	35,890	761,786	15,238	253,913	197,201	2,020,247
	1979	716,158	50,730	672,407	49,901	278,907	210,618	2,312,258
Menominee	1978	306,570	2,763	113,466	594,538	124,896	112,107	1,313,195
	1979	297,027	51,406	101,647	610,540	147,558	109,780	1,395,867
Midland	1978	926,929	77,474	1,327,428	43,746	502,045	295,014	3,624,887
	1979	905,453	141,025	1,440,529	250,606	562,667	316,372	4,151,526
Missaukee	1978	242,030	1,236	105,476	57,462	100,263	70,303	640,966
	1979	385,093	- 1,001	121,424	53,560	123,836	73,510	779,884
Monroe	1978	1,833,917	91,207	2,225,985	121,317	844,728	566,859	7,476,026
	1979	2,401,261	335,655	2,321,903	1,422,906	1,025,818	647,085	9,027,888
Montcalm	1978	797,934	73,747	584,688	439,194	464,370	291,241	2,963,375
	1979	1,054,757	83,337	641,387	366,126	485,938	308,647	3,269,993
Montmorency	1978	135,953	9,356	6,666	6,837	72,770	48,733	342,094
	1979	230,902	33,218	10,683	---	104,942	56,584	516,917
Muskegon	1978	4,034,052	508,188	2,406,892	8,946,389	2,241,038	1,210,501	21,263,239
	1979	4,597,256	340,997	2,859,601	10,948,714	2,417,016	1,361,449	24,551,981
Newaygo	1978	659,861	134,427	1,205,616	312,359	304,087	231,792	5,232,461
	1979	847,335	66,986	1,307,095	360,418	313,971	252,100	3,599,285
Oakland	1978	10,368,656	6,761,644	8,422,468	6,673,815	6,478,148	3,171,988	46,927,782
	1979	12,788,915	6,281,601	9,538,644	8,875,608	6,597,495	3,391,618	53,003,641
Oceana	1978	379,727	9,449	470,892	197,779	219,841	130,869	1,609,177
	1979	492,819	9,280	472,947	346,743	229,209	141,639	1,932,380

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Ogemaw	1978	$ 382,314	$ 30,787	$ 1,252,115	$ 450,972	$ 246,096	$ 266,495	$2,804,035
	1979	445,803	68,669	1,406,727	981,571	261,302	288,970	3,172,856
Ontonagon	1978	220,218	28,338	279,509	419,549	85,022	78,881	1,162,157
	1979	274,000	13,494	299,236	465,680	95,726	87,988	1,293,456
Osceola	1978	356,849	20,654	242,606	165,372	180,482	94,516	1,198,684
	1979	387,353	16,019	236,579	197,024	174,417	106,882	1,256,010
Oscoda	1978	117,457	4,443	3,004	137,882	64,251	55,715	440,738
	1979	136,122	16,159	34,807	144,076	75,057	60,505	515,695
Otsego	1978	177,762	37,220	3,070,906	510,407	119,408	53,475	4,068,930
	1979	173,869	38,570	2,837,457	1,732,594	142,100	67,261	5,101,585
Ottawa	1978	889,981	61,839	2,797,560	1,316,398	478,362	463,211	6,411,467
	1979	732,824	100,319	3,138,940	1,529,544	427,205	495,762	6,823,034
Presque Isle	1978	194,836	68,932	285,864	80,077	84,961	71,593	840,972
	1979	194,722	39,511	157,959	327,266	87,338	82,134	951,285
Roscommon	1978	344,857	16,404	10,425	274,532	161,380	122,999	1,074,844
	1979	315,060	20,533	50,911	259,141	172,916	141,420	1,110,859
Saginaw	1978	5,497,140	423,408	2,453,309	2,810,916	2,849,833	1,250,327	17,476,602
	1979	7,083,948	458,721	2,512,987	3,203,393	3,153,666	1,374,506	20,114,626
St. Clair	1978	2,323,642	280,150	1,578,725	617,435	1,322,059	545,951	7,744,888
	1979	2,688,239	298,714	1,692,718	715,561	1,441,145	579,216	8,689,424
St. Joseph	1978	826,360	18,712	865,901	329,722	339,328	259,052	2,990,018
	1979	1,309,383	133,380	1,094,717	380,918	416,174	309,492	4,105,860
Sanilac	1978	751,103	31,615	277,797	504,487	294,121	161,237	2,239,612
	1979	810,505	58,120	284,973	588,070	321,799	197,579	2,532,670
Schoolcraft	1978	161,411	---	118,403	433,526	96,724	72,475	955,495
	1979	221,138	5,944	134,662	504,881	101,047	78,880	1,143,410
Shiawassee	1978	857,487	40,263	484,520	646,842	457,559	245,412	3,119,765
	1979	1,048,948	17,518	837,846	645,542	485,212	273,864	3,766,326
Tuscola	1978	797,432	48,938	2,497,038	8,147,589	334,128	225,301	12,333,016
	1979	1,122,199	157,197	2,680,384	10,794,619	431,430	253,183	15,813,916
Van Buren	1978	1,913,570	84,022	1,317,581	705,827	872,949	540,420	6,487,954
	1979	2,729,680	229,052	1,354,337	971,373	968,476	620,940	8,101,663

TABLE VII-26. RANKING OF MICHIGAN COUNTIES ACCORDING TO THE PERCENTAGE OF TOTAL POPULATION IN FAMILIES OR HOUSEHOLDS THAT RECEIVED GENERAL ASSISTANCE OR AID TO FAMILIES WITH DEPENDENT CHILDREN FROM THE STATE OF MICHIGAN, FISCAL YEAR: 1979

County	1979		County	1979	
	Number	Percentage		Number	Percentage
Wayne	305,843	13.0	Gratiot	2,199	5.5
Lake	862	12.0	Montcalm	2,536	5.5
Van Buren	7,058	11.3	Kent	24,066	5.4
Saginaw	22,916	10.1	Mackinac	588	5.4
Berrien	16,257	9.8	Alcona	493	5.4
Muskegon	14,937	9.4	Allegan	3,929	5.2
Calhoun	12,665	9.1	Keweenaw	119	5.2
Clare	2,166	9.1	Midland	3,723	5.2
Genesee	40,125	8.9	Tuscola	2,923	5.2
Arenac	1,222	8.7	Mecosta	1,773	5.1
Ogemaw	1,297	8.0	Barry	2,185	5.1
Oceana	1,647	7.8	Branch	1,957	5.0
Ingham	20,855	7.7	Delta	1,964	5.0
Gladwin	1,455	7.6	Luce	350	5.0
Crawford	698	7.4	Manistee	1,090	5.0
St. Clair	9,782	7.3	Hillsdale	1,960	4.9
Houghton	2,594	7.2	Lenawee	4,257	4.9
Newaygo	2,340	7.0	Shiawassee	3,502	4.9
Wexford	1,580	7.0	Iosco	1,457	4.8
Baraga	597	6.9	Washtenaw	11,699	4.6
Chippewa	2,008	6.9	Mason	1,131	4.5
Montmorency	522	6.8	Monroe	5,773	4.4
Osceola	1,217	6.7	Iron	629	4.3
Kalkaska	852	6.6	Menominee	1,178	4.3
Ontonagon	635	6.4	Lapeer	2,887	4.2
Schoolcraft	559	6.4	Marquette	3,156	4.2
Roscommon	1,021	6.3	Charlevoix	794	4.1
Gogebic	1,222	6.2	Antrim	670	4.0
Alger	607	6.1	Emmet	828	3.7
Alpena	2,029	6.1	Presque Isle	502	3.5
Kalamazoo	12,619	6.1	Grand Traverse	1,718	3.4
Cass	1,224	6.0	Huron	1,223	3.4
Oscoda	431	6.0	Oakland	33,216	3.3
St. Joseph	3,102	6.0	Otsego	471	3.1
Cheboygan	1,224	6.0	Clinton	1,648	3.0
Bay	7,103	5.9	Dickinson	773	3.0
Jackson	8,774	5.9	Eaton	2,491	3.0
Missaukee	594	5.9	Livingston	2,695	2.7
Ionia	2,833	5.7	Ottawa	3,255	2.1
Sanilac	2,283	5.7	Leenawee	280	2.0
Isabella	2,932	5.6	Macomb	2,152	.3
Benzie	608	5.5	Michigan	861,691	6.8

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.
NOTE: Figures represent averages of twelve monthly recipient tallies as percentages of the 1 July population.

TABLE VII-27. TRANSFER PAYMENTS PER CAPITA AND RANKING OF MICHIGAN COUNTIES ACCORDING TO TRANSFER PAYMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1978

County	Per capita	Percentage	County	Per capita	Percentage
Lake	$ 1,654	34.5	Emmet	$ 1,177	16.5
Roscommon	1,666	32.0	Otsego	1,027	15.5
Keweenaw	1,700	30.9	Huron	1,088	15.4
Alcona	1,583	30.8	Ionia	951	15.4
Montmorency	1,629	29.7	Muskegon	1,044	15.1
Oscoda	1,289	29.6	Leelanau	1,032	15.1
Gogebic	1,764	29.3	Isabella	780	14.0
Ontonagon	1,461	29.3	Grand Traverse	1,114	14.0
Chippewa	1,359	27.2	St. Clair	1,009	13.8
Ogemaw	1,266	26.7	Hillsdale	923	13.7
Iron	1,460	25.7	Berrien	1,032	13.6
Schoolcraft	1,385	25.5	Gratiot	950	13.6
Clare	1,327	25.5	Allegan	914	13.6
Houghton	1,342	25.3	St. Joseph	983	13.5
Osceola	1,187	23.2	Marquette	907	13.4
Alger	1,105	23.1	Branch	983	13.4
Cheboygan	1,335	22.7	Calhoun	1,101	13.4
Gladwin	1,223	22.4	Wayne	1,182	12.8
Missaukee	1,076	22.2	Barry	816	12.8
Arenac	1,321	21.9	Tuscola	901	12.5
Baraga	1,261	21.8	Cass	893	11.9
Crawford	1,167	21.3	Ingham	1,004	11.8
Luce	1,342	20.9	Bay	892	11.8
Benzie	1,302	20.9	Shiawassee	874	11.7
Delta	1,209	20.6	Lenawee	895	11.7
Mecosta	936	20.6	Jackson	880	11.5
Presque Isle	1,152	20.3	Kent	904	11.3
Wexford	1,270	20.2	Saginaw	911	10.8
Manistee	1,219	19.7	Kalamazoo	882	10.7
Oceana	1,120	19.6	Lapeer	761	10.5
Iosco	1,092	19.6	Genesee	921	10.2
Antrim	1,201	19.2	Monroe	763	9.9
Mackinac	1,133	19.0	Eaton	725	9.3
Kalkaska	928	18.8	Ottawa	703	9.2
Alpena	1,164	18.0	Washtenaw	835	9.1
Van Buren	1,201	17.8	Clinton	642	8.7
Mason	1,089	17.8	Midland	725	8.5
Newaygo	994	17.6	Livingston	594	7.9
Montcalm	1,114	17.4	Macomb	731	7.8
Charlevoix	1,122	17.4	Oakland	806	7.4
Menominee	1,004	16.9			
Dickinson	1,231	16.8	Michigan	981	11.6
Sanilac	1,068	16.8	United States	1,028	13.1

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-28. MICHIGAN COUNTIES RANKED ACCORDING TO SOCIAL SECURITY BENEFITS (OLD AGE, SURVIVORS, AND DISABILITY INSURANCE) AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1978

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Roscommon	15,424	18.3	Otsego	7,554	8.0
Lake	6,075	18.1	Emmet	12,234	8.0
Keweenaw	2,168	17.9	Van Buren	32,491	7.7
Montmorency	7,029	16.6	Muskegon	76,873	7.0
Alcona	7,844	16.4	St. Joseph	26,203	7.0
Oscoda	4,574	15.7	Hillsdale	18,800	6.8
Iron	11,745	14.0	Leelanau	6,197	6.8
Gogebic	15,838	13.4	Ionia	20,667	6.7
Ogemaw	10,674	13.4	Branch	18,817	6.6
Clare	15,683	12.7	Grand Traverse	25,038	6.5
Ontonagon	6,339	11.9	Gratiot	17,684	6.5
Gladwin	11,607	11.6	Berrien	81,749	6.5
Osceola	10,774	11.6	Barry	16,858	6.2
Houghton	22,592	11.4	Allegan	30,461	6.1
Schoolcraft	5,720	11.3	St. Clair	59,145	6.1
Alger	5,260	11.0	Tuscola	23,491	5.9
Presque Isle	8,786	11.0	Lenawee	38,657	5.8
Baraga	5,375	10.8	Jackson	64,731	5.6
Arenac	8,690	10.7	Calhoun	65,037	5.6
Missaukee	4,904	10.4	Marquette	27,742	5.6
Crawford	4,965	10.0	Bay	50,841	5.5
Chippewa	15,125	9.9	Cass	18,379	5.4
Manistee	13,806	9.9	Kent	185,895	5.3
Oceana	11,495	9.6	Isabella	14,456	5.0
Benzie	6,300	9.6	Shiawassee	26,181	5.0
Mackinac	6,354	9.5	Wayne	1,093,125	4.9
Cheboygan	10,956	9.4	Saginaw	92,321	4.8
Antrim	9,607	9.4	Ottawa	53,897	4.7
Iosco	15,921	9.4	Kalamazoo	78,531	4.6
Wexford	13,111	9.2	Monroe	45,653	4.5
Luce	4,220	9.0	Lapeer	21,300	4.4
Menominee	13,925	8.9	Genesee	178,450	4.4
Kalkaska	4,932	8.8	Ingham	95,721	4.1
Mason	13,261	8.8	Livingston	26,065	3.7
Dickinson	16,576	8.7	Eaton	23,703	3.7
Charlevoix	10,826	8.6	Midland	22,086	3.7
Newaygo	16,017	8.5	Clinton	14,893	3.7
Mecosta	13,318	8.4	Macomb	239,556	3.7
Montcalm	23,907	8.2	Oakland	380,613	3.5
Sanilac	20,914	8.2	Washtenaw	71,298	3.1
Delta	19,261	8.2			
Huron	20,483	8.1	Michigan	3,893,152	5.0
Alpena	17,380	8.0	U.S.	91,397,000	5.3

SOURCE: Developed from Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-29. MICHIGAN COUNTIES RANKED ACCORDING TO PUBLIC ASSISTANCE (WELFARE) BENEFITS AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1978

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Lake	1,357	4.0	Allegan	6,301	1.3
Van Buren	11,275	2.7	Delta	2,847	1.2
Clare	3,040	2.5	Cass	3,981	1.2
Ogemaw	1,923	2.4	St. Joseph	4,406	1.2
Wayne	514,503	2.3	Jackson	13,261	1.2
Arenac	1,889	2.3	Mason	1,739	1.1
Oceana	2,721	2.3	Bay	10,548	1.1
Gladwin	2,148	2.2	Iron	957	1.1
Kalkaska	1,186	2.1	Gratiot	3,132	1.1
Muskegon	22,587	2.1	Kalamazoo	19,625	1.1
Houghton	4,016	2.0	Luce	534	1.1
Crawford	1,010	2.0	Barry	3,117	1.1
Osceola	1,829	2.0	Manistee	1,491	1.1
Chippewa	2,965	1.9	Menominee	1,660	1.1
Missaukee	906	1.9	Kent	36,097	1.0
Berrien	23,573	1.9	Hillsdale	2,807	1.0
Newaygo	3,493	1.9	Tuscola	3,972	1.0
Oscoda	536	1.8	Shiawassee	5,205	1.0
Montmorency	777	1.8	Presque Isle	790	1.0
Saginaw	34,706	1.8	Lenawee	6,492	1.0
Alger	859	1.8	Washtenaw	22,152	1.0
Roscommon	1,490	1.8	Marquette	4,684	.9
Ontonagon	936	1.8	Midland	5,559	.9
Mecosta	2,731	1.7	Charlevoix	1,135	.9
Baraga	814	1.6	Monroe	9,061	.9
Gogebic	1,926	1.6	Branch	2,533	.9
Calhoun	18,440	1.6	Lapeer	4,281	.9
Cheboygan	1,825	1.6	Antrim	862	.8
Isabella	4,393	1.5	Huron	1,984	.8
St. Clair	14,748	1.5	Emmet	1159	.8
Ingham	34,808	1.5	Otsego	707	.7
Genesee	60,887	1.5	Grand Traverse	2,447	.6
Wexford	2,138	1.5	Livingston	4,343	.6
Alcona	709	1.5	Clinton	2,382	.6
Sanilac	3,719	1.5	Eaton	3,567	.6
Schoolcraft	732	1.4	Dickinson	1,062	.6
Keweenaw	170	1.4	Macomb	33,791	.5
Alpena	3,015	1.4	Leelanau	471	.5
Ionia	4,241	1.4	Oakland	52,985	.5
Montcalm	3,805	1.3	Ottawa	4,962	.4
Mackinac	869	1.3			
Iosco	2,154	1.3	Michigan	1,295,644	1.7
Benzie	836	1.3	U. S.	17,779,000	1.0

SOURCE: Developed from Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-30. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE UNEMPLOYED PARENT AID TO DEPENDENT CHILDREN PROGRAM, ANNUAL AVERAGES: 1978-1979

County	Number 1978	Number 1979	Percentage change	County	Number 1978	Number 1979	Percentage change
Manistee	87	224	157.5	Otsego	53	55	3.8
Branch	214	360	68.2	Luce	84	87	3.4
Oscoda	86	137	59.3	Presque Isle	110	113	2.7
Berrien	532	841	58.1	Gratiot	572	586	2.4
Montmorency	105	166	58.1	Van Buren	1,441	1,474	2.3
Dickinson	59	93	57.6	Calhoun	1,749	1,788	2.2
Leelanau	22	32	45.5	Gogebic	334	340	1.8
Chippewa	325	445	36.9	Delta	420	435	1.2
Wexford	298	396	32.9	Macomb	1,651	1,666	.9
Iosco	199	263	32.2	Genesee	3,699	3,724	.7
Schoolcraft	110	143	30.0	St. Clair	1,894	1,903	.5
Alpena	229	279	28.1	Lenawee	911	914	.3
Crawford	99	125	26.3	Isabella	919	916	- .3
Mason	100	124	24.0	Missaukee	154	153	- .6
Gladwin	434	537	23.7	Ionia	530	526	- .8
Benzie	131	160	22.1	Roscommon	147	145	- 1.4
Cheboygan	229	279	21.8	Midland	1,007	980	- 2.7
Clinton	282	342	21.3	Arenac	316	305	- 3.5
Antrim	81	98	21.0	Ontonagon	219	210	- 4.1
Menominee	200	237	18.5	Washtenaw	978	938	- 4.1
Emmet	106	124	17.0	Saginaw	2,296	2,189	- 4.6
Keweenaw	18	21	16.7	Alger	161	151	- 6.2
Clare	642	745	16.0	Montcalm	490	456	- 6.9
Barry	293	538	15.4	Iron	147	136	- 7.5
Houghton	755	869	15.1	Oceana	457	421	- 7.9
Wayne	13,959	15,980	14.5	Ingham	3,015	2,775	- 8.0
Monroe	790	901	14.1	Jackson	802	722	-10.0
Cass	353	395	11.9	Osceola	331	297	-10.3
St. Joseph	507	567	11.8	Alcona	155	138	-11.0
Charlevoix	91	101	11.0	Grand Traverse	193	171	-11.4
Marquette	546	604	10.6	Kalkaska	168	148	-11.9
Sanilac	554	607	9.6	Shiawassee	747	651	-12.9
Eaton	415	455	9.6	Kalamazoo	1,406	1,209	-14.0
Bay	1,133	1,241	9.5	Muskegon	1,651	1,407	-14.8
Ogemaw	336	364	8.3	Allegan	728	611	-16.1
Tuscola	548	592	8.0	Lake	131	109	-16.8
Mecosta	391	422	7.9	Huron	278	228	-18.0
Lapeer	504	544	7.7	Kent	1,378	1,109	-19.5
Baraga	109	115	5.5	Newaygo	488	384	-21.3
Oakland	2,158	2,262	4.8	Ottawa	266	205	-22.9
Mackinac	173	181	4.6	Livingston	436	331	-24.1
Hillsdale	296	309	4.4	Michigan	61,663	66,431	+ 4.5

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.

TABLE VII-31. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE REGULAR AID TO DEPENDENT CHILDREN PROGRAM, ANNUAL AVERAGES: 1978-1979

County	Number 1978	Number 1979	Percentage change	County	Number 1978	Number 1979	Percentage change
Oscoda	255	319	25.1	Calhoun	9,644	9,732	.9
Keweenaw	62	75	21.0	Muskegon	12,655	12,761	.8
Charlevoix	594	687	15.7	Van Buren	4,974	5,017	.8
Kalkaska	560	645	15.2	Ogemaw	848	852	.5
Benzie	380	422	11.0	Presque Isle	376	378	.5
Montmorency	296	325	9.8	Cheboygan	887	890	.3
Alcona	326	353	8.3	Mecosta	1,288	1,290	.2
Antrim	519	561	8.1	Otsego	412	413	.2
Menominee	815	878	7.7	Newaygo	1,799	1,801	.1
Roscommon	753	811	7.7	Oakland	28,811	28,834	.1
Clare	1,268	1,364	7.6	Lake	683	683	0
Schoolcraft	353	376	6.5	Alger	396	395	- .3
Manistee	783	834	6.5	Livingston	2,291	2,284	- .3
Delta	1,343	1,428	6.3	Macomb	18,976	18,877	- .5
Gratiot	1,482	1,568	5.8	Monroe	4,726	4,701	- .5
Baraga	352	372	5.7	Houghton	1,269	1,257	- .9
Iron	442	467	5.6	Arenac	808	799	- 1.1
Marquette	2,318	2,436	5.1	Mason	975	961	- 1.4
Osceola	798	837	4.9	Huron	927	912	- 1.6
Tuscola	2,115	2,217	4.8	Ottawa	3,001	2,954	- 1.6
St. Joseph	2,351	2,460	4.6	Jackson	7,699	7,573	- 1.6
Saginaw	17,777	18,574	4.5	Emmet	664	652	- 1.8
Berrien	14,332	14,964	4.4	Barry	1,722	1,689	- 1.9
Lapeer	2,131	2,214	3.9	Cass	2,330	2,282	- 2.1
Chippewa	1,400	1,452	3.7	St. Clair	7,286	7,135	- 2.1
Wexford	1,157	1,196	3.4	Ingham	16,465	16,079	- 2.3
Genesee	33,369	34,472	3.3	Leelanau	241	235	- 2.5
Wayne	250,206	257,771	3.0	Mackinac	392	381	- 2.8
Gladwin	875	901	3.0	Kent	22,210	21,501	- 3.2
Crawford	544	558	2.6	Ionia	2,094	2,027	- 3.2
Shiawassee	2,767	2,774	2.5	Gogebic	752	728	- 3.2
Lenawee	3,191	3,271	2.5	Sanilac	1,632	1,578	- 3.3
Isabella	1,841	1,881	2.2	Eaton	1,962	1,888	- 3.8
Ontonagon	358	364	1.7	Hillsdale	1,629	1,557	- 4.4
Dickinson	663	674	1.7	Missaukee	423	404	- 4.5
Branch	1,509	1,534	1.7	Montcalm	1,993	1,900	- 4.7
Iosco	1,067	1,084	1.6	Washtenaw	10,054	9,562	- 4.9
Alpena	1,338	1,358	1.5	Clinton	1,329	1,247	- 6.2
Kalamazoo	10,605	19,740	1.3	Allegan	3,261	3,047	- 6.6
Bay	5,300	5,360	1.1	Oceana	1,176	1,096	- 6.8
Grand Traverse	1,493	1,508	1.0	Luce	274	242	-11.7
Midland	2,451	2,474	.9	Michigan	553,777	563,135	+ 1.7

SOURCE: Michigan Department of Social Services, special release.

TABLE VII-32. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN THE NUMBER OF PEOPLE RECEIVING BENEFITS UNDER THE GENERAL ASSISTANCE PROGRAM, FISCAL YEAR AVERAGES: 1978-1979

County	Number		Percentage change	County	Number		Percentage change
	1978	1979			1978	1979	
Leelanau	11	2	450.0	Oscoda	20	18	11.1
Antrim	33	14	135.7	Arenac	134	123	8.9
Cass	125	68	83.8	Kalamazoo	693	648	6.9
Berrien	688	381	80.6	Alcona	19	18	5.6
Crawford	39	24	62.5	Ogemaw	96	91	5.5
Emmet	58	36	61.1	Alger	58	55	5.5
Tuscola	186	117	59.0	Eaton	195	186	4.8
Dickinson	30	19	57.9	Genesee	2,581	2,471	4.5
Otsego	14	9	55.6	Gogebic	126	121	4.1
Benzie	48	31	54.8	Houghton	448	433	3.5
Huron	98	65	50.8	Montcalm	158	153	3.3
Isabella	158	105	50.5	Midland	239	232	3.0
Bay	614	417	47.2	Charlevoix	38	37	2.7
Presque Isle	23	16	43.8	Clinton	78	76	2.6
Montmorency	62	44	40.9	Lenawee	182	181	.6
Shiawassee	155	112	38.4	Ontonagon	45	45	0
Roscommon	114	83	37.4	Saginaw	2,434	2,448	- .6
Monroe	282	206	36.9	Muskegon	805	810	- .6
Clare	153	112	36.6	Ottawa	143	149	- 4.0
Grand Traverse	57	42	35.7	Allegan	197	206	- 4.4
Keweenaw	24	18	33.3	Sanilac	142	149	- 4.7
Manistee	100	75	33.3	St. Joseph	180	190	- 5.3
Kalkaska	62	47	31.9	Jackson	529	559	- 5.4
Marquette	207	157	31.9	Wexford	65	72	- 9.7
Mackinac	21	16	31.3	Osceola	90	100	-10.0
Livingston	111	85	30.6	Baraga	121	136	-11.0
St. Clair	700	540	29.6	Mason	56	63	-11.1
Chippewa	157	122	28.7	Cheboygan	55	62	-11.3
Iosco	144	112	28.6	Washtenaw	1,135	1,284	-11.6
Mecosta	88	69	27.5	Ingham	1,890	2,218	-14.8
Gratiot	84	66	27.3	Wayne	24,852	29,441	-15.6
Menominee	94	74	27.0	Oakland	2,100	2,523	-16.8
Macomb	1,194	949	25.8	Branch	138	170	-18.8
Oceana	142	113	25.7	Luce	21	26	-19.2
Barry	151	121	24.8	Kent	1,373	1,733	-20.8
Hillsdale	111	89	24.7	Lapeer	180	228	-21.1
Alpena	137	111	23.4	Newaygo	142	183	-22.4
Calhoun	1,207	983	22.8	Gladwin	69	90	-23.3
Van Buren	597	490	21.8	Missaukee	25	33	-24.2
Delta	158	130	21.5	Lake	79	112	-29.5
Ionia	268	226	18.6	Schoolcraft	41	81	-49.4
Iron	35	31	12.9	Michigan	69,691	54,566	27.7

SOURCE: Developed from figures supplied by the Michigan Department of Social Services, special release.

VIII. LAW ENFORCEMENT AND THE COURTS

The Michigan Department of State Police compiles data on criminal offenses, arrests, and stolen property within the state of Michigan. It publishes these data in the monthly Uniform Crime Report Bulletin, the semi-annual crime summary, and the annual Uniform Crime Report, which is usually published in the spring. From 1959 through 1970, the information now contained in the Uniform Crime Report was found in the Department of State Police's Michigan Law Enforcement Officials Report on Crime. Michigan began collecting such data in 1959.

National data on crime and comparisons with other states are found in the Federal Bureau of Investigation's Uniform Crime Report for the United States.

The Michigan Department of State Police collects data from its units in the field, county sheriff' departments, and other police units of local governments. Its statistics are more comprehensive than those published in the federal Uniform Crime Report, especially since less is now being published in that document. The tables that follow present considerable information not included in this year's federal Uniform Crime Report. For additional information, the Uniform Reporting Section of the Michigan Department of State Police should be contacted.

Statistics on all types of fires are kept by the Fire Marshall Division, Michigan Department of State Police, and are published in Michigan Fire Incident Reporting System.

The Federal Bureau of Investigation divides crimes into two categories: Index Offenses and Nonindex Offenses. Index Offenses are those referred to when authorities say the crime index has increased. The crime rate is the total index crime per 100,000 population. Crimes in the index are usually more serious and/or are based on data with a high degree of interpreting and reporting reliability. Index Offenses are murder and nonnegligent manslaughter; rape; robbery in the form of stealing from a person; aggravated assault; burglary, which is any unlawful entry to commit a felony or theft; larceny, which is theft excluding motor vehicle theft (listed separately) and does not include con games, embezzlement, or fraud; and motor vehicle theft (the term has been used interchangeably with auto theft), which includes all cases in which a motor vehicle is stolen or driven away. All other offenses are classified under Nonindex Offenses. Sex offenses do not include rape or prostitution and commercialized vice, which are listed separately. Offenses against family and children include nonsupport, desertion, neglect, and abuse. The term "liquor laws" as used here includes all violations of the liquor laws except driving under the influence and drunkenness, which are listed separately.

Offenses are crimes committed; arrests refer to the number of individuals taken into custody and formally charged with violation of the law. An offense is cleared by arrest when at least one person is arrested, charged, and given to the court for prosecution. Data concerning offenses include attempts to commit a crime whether or not successfully executed. It might be noted that perhaps one-half of all crime goes unreported.

The Court System

Because of the numerous names, the court system seems confusing. There are two court systems: federal and state. The federal system will be considered first. The Federal District Court in Michigan is divided into the Eastern District, with the main court in Detroit and branches in Flint and Bay City, and the Western District, with the main court in Grand Rapids and a branch in Marquette. These courts not only handle criminal and civil cases, but also have bankruptcy courts that report separately. An appeal from a Federal District Court in Michigan goes to the 6th Circuit Court of Appeals in Cincinnati, Ohio. From there, a case would be appealed to the U.S. Supreme Court in Washington, D.C. There currently is no good source of data on federal courts in Michigan, as they issue no annual report. They must make monthly reports. Separate reports are issued for criminal, civil, and bankruptcy proceedings.

The Michigan Constitution of 1963 provided for a uniform state court system consisting of courts and several other judicial organizations with specialized functions. The courts are responsible not only for the formal processing of fully litigated criminal prosecutions and civil proceedings, but also for the administrative proceedings of criminal cases. We will consider each part of the state system in detail, beginning with the Michigan Supreme Court.

Supreme Court

The Michigan Supreme Court is the highest appellate court in the state judicial system and is responsible for exercising supervision and control over all other state courts. This supervision includes promulgation of court rules and procedures. The seven Supreme Court judges are chosen in nonpartisan elections for eight-year terms. No more than two terms of office shall expire at the same time. The chief justice is selected by the court justices from their number. The court appoints an administrator of the courts and such assistants as necessary to perform the requisite duties and aid in the administration of the courts. The Supreme Court is located in Lansing.

Court of Appeals

A decision of the Court of Appeals is final, except when the Michigan Supreme Court grants review. It hears appeals on both criminal and civil cases and from administrative agencies. The 18 Court of Appeals judges are nominated and elected in nonpartisan elections from three districts. The three courts are located in Detroit, Lansing, and Grand Rapids.

Circuit Court

Circuit courts evolved from the old system of county courts. Presently there are 50, each with a jurisdiction of one to four counties. These are courts of record and have general responsibility for criminal, civil, and divorce cases. They generally have original jurisdiction in criminal cases

TABLE VII-25. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Washtenaw	1978	$ 3,769,121	$ 3,024,212	$2,581,382	$1,080,254	$ 1,728,883	$ 878,033	$14,726,062
	1979	5,124,942	3,876,432	2,879,651	1,002,645	1,747,325	892,747	17,458,118
Wayne	1978	149,429,612	19,068,670	39,750,946	57,676,115	55,157,282	21,794,021	390,128,411
	1979	169,209,759	23,717,447	46,511,908	74,889,335	59,371,043	24,824,213	451,678,893
Wexford	1978	567,596	24,880	530,038	233,686	227,820	194,930	1,976,335
	1979	737,007	86,134	872,992	18,826	283,539	209,007	2,436,498
TOTAL	1978	260,138,756	42,485,300	146,305,193	188,726,999	133,850,463	53,479,511	900,528,057
	1979	303,566,964	50,618,201	158,837,674	230,006,861	122,167,123	59,559,816	1,031,887,588

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal Year 1978 (Lansing: 1979), Table 10; and Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal Year 1979 (Lansing: 1980), Table 9.

a. See Table VII-14 for a complete listing of items included in the total.

TABLE VII-33. EFFECTIVE AND SCHEDULED CONTRIBUTION RATES UNDER THE SOCIAL SECURITY SYSTEM (FEDERAL INSURANCE CONTRIBUTIONS ACT): 1950-1990

Year	Annual maximum taxable earnings	Contribution rate (percentage of taxable earnings)						Supplementary medical insurance, monthly[d] (dollars)
		Each employer and employee			Self-employed[a]			
		OASDI[b]	HI[c]	Total	OASDI[b]	HI[c]	Total	
In effect								
1950	$3,000	1.50	--	1.50	2.25[e]	--	2.25[e]	--
1955	4,200	2.00	--	2.00	3.00	--	3.00	--
1960	4,800	3.00	--	3.00	4.50	--	4.50	--
1965	4,800	3.625	--	3.625	5.40	--	5.40	--
1970	7,800	4.20	.60	4.80	6.30	.60	6.90	5.30
1971	7,800	4.60	.60	5.20	6.90	.60	7.50	5.60
1972	9,000	4.60	.60	5.20	6.90	.60	7.50	5.80
1973	10,800	4.85	1.00	5.85	7.00	1.00	8.00	6.30
1974	13,200	4.95	.90	5.85	7.00	.90	7.90	6.70
1975	14,100	4.95	.90	5.85	7.00	.90	7.90	6.70
1976	15,300	4.95	.90	5.85	7.00	.90	7.90	7.20
1977	16,500	4.95	.90	5.85	7.00	.90	7.90	7.70
1978	17,700	5.05	1.00	6.05	7.10	1.00	8.10	8.20
1979	22,900	5.08	1.05	6.13	7.05	1.05	8.10	8.70
Future schedule								
1980	25,900	5.08	1.05	6.13	7.05	1.05	8.10	9.20
1981	29,700	5.35	1.30	6.65	8.00	1.30	9.30	9.70
1982-84	(f)	5.40	1.30	6.70	8.05	1.30	9.35	n.a.
1985	(f)	5.70	1.35	7.05	8.55	1.35	9.90	n.a.
1986-89	(f)	5.70	1.45	7.15	8.55	1.45	10.00	n.a.
1990	(f)	6.20	1.45	7.65	9.30	1.45	10.75	n.a.

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1978 (Washington, D.C.: 1979), Table 527; and Social Security Administration, General Revenue Financing of the Social Security System (Washington, D.C.: 1978), Staff Paper no. 33, Tables 11-4 and 11-5.

a. Self-employed persons brought under the program for the first time in 1951.

b. Cash benefits for old-age, survivors, and disability insurance.

c. Hospital insurance for the aged, first effective in 1966; for the disabled, in 1973.

d. Program began July 1966. Voluntary program financed by equal contributions from participants 65 and older and the federal government. Beginning in 1973, the federal government finances whatever costs are not met by contributions from disabled and aged participants. Dollar amounts effective 1 July of the years shown.

e. Data for 1951.

f. The annual percentage increase in the contribution base is equal to the annual percentage increase in average wages in covered employment, wages which are subject to Social Security taxes.

when the offense constitutes a felony or has a maximum penalty exceeding one year in the state prison. There are 147 judges, elected every six years on a nonpartisan ballot from their district.

Court of Claims

The Court of Claims is a special court provided for hearing cases involving claims against the state or any of its departments, commissions, or institutions. One of the circuit judges is designated by the court administrator to act as judge in the Court of Claims when it is in session. Any claimant may bring suit in this court, provided the claim is in excess of $100.

Probate Courts

In general, probate courts have original jurisdiction in all cases of juvenile delinquents and dependents. These courts handle wills and estates, the commitment of mentally ill persons, and adoptions. The juvenile division handles cases involving children under 17 years of age who are delinquent, neglected, or abandoned. Except for a few counties that have joined to form a probate district, each county has its own probate court. There are 83 of these courts and 103 judges, nominated and chosen in nonpartisan elections for six-year terms.

District Courts

The district courts were created to replace justice of the peace courts, circuit court commissioners, and most of the municipal courts except for those in some of the larger cities. The civil jurisdiction of the district courts is exclusive in cases involving up to $10,000. They have criminal jurisdiction in misdemeanor cases punishable by fine or imprisonment in the state prison not exceeding one year; ordinance and charter violations; arraignments; the fixing of bail and acceptance of bonds; and preliminary examinations in felony and high misdemeanor cases. A small claims division was created within the district courts to adjudicate on an optional and informal basis those civil matters involving up to $300. District courts do not handle divorces, injunctions, or cases that are basically equitable in nature. There are 86 district courts divided, for the most part, along county lines; however, many of the less populous counties have joined to form a district, while some of the more populous are divided into two or more districts. For example, Wayne County has eleven such courts. Some counties have divided their district courts into several divisions. There are 188 judgeships.

Municipal Courts

Most of the municipal courts were abolished when the district courts were formed, but some municipalities were permitted to elect to maintain their municipal status. There are 24 municipal courts located in Kent, Macomb, Oakland, and Wayne counties. There are 36 judgeships. These courts

have exclusive jurisdiction over all ordinance violations, all of the criminal jurisdiction formerly held by justices of the peace, and civil jurisdiction in controversies in which damages not exceeding $1,000 are sought. In some instances, the sum is $1,500. Detroit has a special municipal court system, all described under the next two subheadings.

Common Pleas Court

The municipal court that handles civil cases in Detroit is the Common Pleas Court. It is a consolidation of the various justice of the peace courts, and its jurisdiction in civil cases is greater than these former courts once held. There are a civil division and a landlord-tenant division. There are 13 judgeships.

Recorder's Court

The municipal court in Detroit that has jurisdiction over criminal cases is the Recorder's Court. It also has a traffic and ordinance division. The Recorder's Court has a total of 23 judgeships, three in the Traffic and Ordinance Division.

Judicial Tenure Commission

The Judicial Tenure Commission is responsible for investigating complaints against judges and, where appropriate, recommending that the state Supreme Court take certain action. Recommendations must be based upon proof of conviction of a felony, physical or mental disability that prevents the performance of judicial duties, habitual intemperance, or conduct clearly prejudicial to the administration of justice. The commission consists of nine members selected for staggered three-year terms. Four are judges elected by their colleagues in the courts in which they serve: one from the Court of Appeals, one from the circuit courts, one from the probate courts, and one from a court of limited jurisdiction. Three are members of the state bar; one of these shall be a judge and the other two shall not be. Two members are appointed by the governor and cannot be judges or members of the state bar.

State Bar Grievance Board

The State Bar Grievance Board was established by the state Supreme Court to supervise and discipline members of the Michigan bar. The board consists of seven members: three lawyers appointed by the commissioners of the state bar, and two lawyers and two laymen appointed by the Supreme Court. All members of the board serve three-year terms without compensation; only full-time employees of the board are compensated. No public funds are provided for the board's operation, and all reasonable and necessary expenses are paid by the state bar out of members' annual dues.

State Appellate Defender

The Office of the State Appellate Defender provides indigents in criminal postconviction cases with competent legal representation consistent with constitutional requirements. Appointments are made by a court from a staff of attorneys to handle a case until completion. The attorneys examine the lower court documents, research issues, make motions and oral arguments, and write briefs. Law students have been employed to research cases so that the attorneys' time can be used most efficiently. The State Appellate Defender's office provides information to legislators on pending legislation and cases in areas of criminal law and publishes a criminal defense newsletter on significant recent cases in Michigan and federal courts.

Probation Services

Probation services are supervised by the courts, although probation officers are provided by the Department of Corrections and by some counties and cities. Services include presentence investigations, monitoring and supervising convicted offenders placed on probation, and supervising misdemeanants who do not require incarceration.

Corrections

There is one federal prison in Michigan, located in Milan. It was constructed in 1933 to house marshals' prisoners, but it presently also is being used as a correctional facility for young adults. A prison industry produces metal furniture for federal government use. Milan is organized into five functional units: marriage counseling, marshals' prisoners, general treatment, drug abuse, and admission and orientation. A new federal prison is planned for Detroit, across from the present courthouse, to hold people awaiting trial and for relatively short periods of time. For additional information, the Case Management Coordinator at Milan should be contacted.

Information on Michigan prisons and jails comes from the Michigan Department of Corrections. Data on state prisons and the people confined to them are found in the department's Annual Report, the title of which has changed several times in the last years. The Michigan Department of Corrections also publishes special reports, Monthly Summary and Facilities and Census Report, which are useful and current. Information on county jails may be obtained from special releases of the Office of Jail Services, Department of Corrections. Information on city jails is not available except for several cities that currently send data to the Office of Jail Services. It is expected that more information on local jails will become available in the future.

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TABLE VIII-1. CRIMINAL OFFENSES IN MICHIGAN BY TYPE IN THE CRIME INDEX: 1960-1979

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	366	894	5,590	7,209	42,723	106,540	13,171	176,493
1961	297	883	4,776	7,576	43,496	112,209	13,442	182,679
1962	255	939	5,766	7,824	43,408	116,279	14,725	189,196
1963	242	940	6,301	7,370	44,086	125,573	17,014	201,526
1964	250	1,217	6,766	8,650	45,871	129,791	21,172	213,717
1965	344	1,407	7,881	10,341	55,017	133,516	24,208	232,714
1966	365	1,844	12,423	10,641	72,333	153,895	27,612	279,113
1967	517	1,848	16,071	12,826	91,264	173,095	33,415	329,036
1968	614	2,105	17,608	13,802	88,234	167,783	34,732	324,878
1969	726	2,231	22,880	15,080	104,177	201,466	41,594	388,154
1970	831	2,402	30,758	17,099	139,398	253,258	41,184	484,930
1971	938	2,405	29,698	18,647	151,357	264,980	44,720	512,745
1972	964	2,652	26,248	20,440	143,034	248,201	42,890	484,429
1973	1,163	3,166	25,521	23,001	142,304	247,785	49,234	492,092
1974	1,170	3,370	30,657	24,739	172,828	302,301	56,599	591,664
1975	1,042	3,477	32,354	25,751	173,134	327,367	59,755	622,880
1976	1,001	3,281	30,241	24,154	151,207	321,192	55,688	586,764
1977	905	3,565	23,840	25,149	135,568	281,548	49,394	519,917
1978	862	3,614	20,192	28,661	130,716	279,261	47,995	511,301
1979	810	4,085	20,168	31,261	138,074	312,643	55,142	562,183

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1978 (East Lansing: annually), pp. 9-24; Michigan Law Enforcement Officials Report on Crime, 1968 through 1970 (East Lansing: annually), and special release.

TABLE VIII-2. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN MICHIGAN: 1960-1979

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	4.7	11.4	71.4	92.0	545.4	1,360.0	168.1	2,252.9
1961	3.8	11.2	60.5	96.0	551.1	1,421.6	170.3	2,314.4
1962	3.2	11.8	72.7	98.6	547.2	1,465.8	185.6	2,384.9
1963	3.0	11.7	78.2	91.5	547.1	1,558.4	211.1	2,500.9
1964	3.1	14.9	82.6	105.7	560.3	1,585.3	258.6	2,610.4
1965	4.1	16.8	94.3	123.7	658.3	1,597.7	289.7	2,784.7
1966	4.3	21.7	145.0	125.0	849.8	1,808.0	324.4	3,279.0
1967	6.0	21.4	186.2	148.6	1,057.5	2,005.7	387.2	3,812.7
1968	7.1	24.2	202.5	158.7	1,014.7	1,929.4	399.4	3,736.0
1969	8.3	25.4	260.6	171.7	1,186.4	2,294.3	473.7	4,420.4
1970	9.3	27.0	345.6	192.1	1,566.1	2,845.3	462.7	5,448.0
1971	10.4	26.7	330.1	207.3	1,682.5	2,945.5	497.1	5,699.7
1972	10.7	29.4	291.2	226.8	1,587.0	2,753.8	475.9	5,374.8
1973	11.9	34.9	281.7	253.9	1,570.5	2,734.6	543.4	5,430.9
1974	12.8	37.0	336.3	271.4	1,895.7	3,315.8	620.8	6,489.7
1975	11.4	38.0	353.3	281.2	1,890.7	3,575.1	652.6	6,802.2
1976	11.2	36.0	332.2	265.3	1,660.9	3,528.0	611.7	6,445.1
1977	9.3	38.7	261.1	272.0	1,514.9	3,126.7	542.7	5,765.4
1978	9.9	39.3	219.7	311.9	1,422.5	3,039.1	522.3	5,564.3
1979	8.8	44.4	219.1	339.5	1,499.7	3,395.7	598.9	6,106.0

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1978 (East Lansing: annually), pp. 9-24; and Michigan Law Enforcement Officials Report on Crime, 1960 through 1970 (East Lansing: annually), and special release.

NOTE: Michigan population of 9,189,000 is Bureau of the Census provisional estimate as of 1 July 1978.

TABLE VIII-3. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN THE UNITED STATES: 1960-1978

Year	Murder and nonnegligent manslaughter	Forcible rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1960	5.1	9.5	60.0	85.4	505.6	1,027.8	182.4	1,875.8
1961	4.7	9.4	58.1	85.0	515.7	1,038.5	183.0	1,894.5
1962	4.6	9.4	59.5	87.9	532.0	1,117.4	196.8	2,007.6
1963	4.6	9.3	61.6	91.7	572.9	1,211.0	215.9	2,167.0
1964	4.9	11.2	68.0	105.4	630.9	1,306.8	246.5	2,373.7
1965	5.1	12.1	71.5	110.4	658.7	1,320.5	255.9	2,434.2
1966	5.6	13.2	80.6	119.4	716.6	1,433.4	286.0	2,654.7
1967	6.2	13.9	102.5	129.2	821.5	1,565.4	333.0	2,971.8
1968	6.9	15.8	131.5	142.7	926.6	1,735.1	391.7	3,350.2
1969	7.3	18.4	148.0	153.3	978.2	1,918.2	434.8	3,658.1
1970	7.8	18.6	171.7	163.6	1,078.4	2,065.5	455.3	3,960.9
1971	8.6	20.4	187.5	177.5	1,156.4	2,131.3	458.3	4,140.0
1972	8.9	22.4	180.3	187.3	1,133.9	1,980.4	424.6	3,937.8
1973	9.3	24.4	182.6	198.9	1,215.1	2,058.2	441.1	4,129.7
1974	9.7	26.1	208.8	214.2	1,429.0	2,473.0	460.6	4,821.4
1975	9.6	26.3	218.2	227.4	1,525.9	2,804.8	469.4	5,281.7
1976	8.7	26.4	195.8	228.7	1,439.5	2,921.4	446.1	6,255.6
1977	8.8	29.1	187.1	241.5	1,410.9	2,729.9	447.6	5,055.1
1978	9.0	30.8	191.3	255.9	1,423.7	2,743.9	454.7	5,109.3

SOURCE: Federal Bureau of Investigation, Uniform Crime Reports for the United States, 1978 (Washington, D.C.: 1978) Table 1.

NOTE: Population is the Bureau of Census provisional estimates as of 1 July, except 1 April 1970 census. The 1977 population estimate was 216,332,000.

TABLE VIII-4. NONCRIME INDEX OFFENSES IN MICHIGAN, BY TYPE: 1974-1979

Offenses	1974	1975	1976	1977	1978	1979
Negligent manslaughter	233	211	197	331	190	n.a.
Assault (nonaggravated)	41,371	44,605	43,810	46,126	53,029	58,478
Arson	4,821	5,499	5,412	5,641	5,728	8,903
Forgery and counterfeiting	10,780	9,947	8,392	6,348	5,797	n.a.
Fraud	18,800	21,007	23,147	28,455	33,054	n.a.
Embezzlement	2,406	2,682	2,858	7,965	1,512	n.a.
Stolen property	5,285	5,429	4,933	5,717	6,943	n.a.
Vandalism	122,889	137,080	135,014	149,419	167,043	n.a.
Weapons (possession, etc.)	12,018	12,167	10,918	9,895	7,004	7,192
Prostitution	680	720	958	928	1,011	n.a.
Sex offenses (except rape and prostitution)	7,791	8,045	7,657	8,710	8,069	n.a.
Narcotic laws	29,102	26,891	25,483	24,198	23,094	n.a.
Gambling	474	502	315	308	320	n.a.
Against family and children	12,716	13,489	12,047	10,113	68,865	n.a.
Driving under the influence	31,500	33,440	30,988	31,982	36,776	45,076
Liquor laws	13,304	16,208	17,265	17,969	18,497	n.a.
Drunkenness	30,663	32,409	30,396	29,448	4,362	n.a.
Disorderly conduct	40,194	49,155	43,895	53,526	73,860	n.a.
Vagrancy	1,020	5,664	1,360	714	904	n.a.
Other	140,898	143,508	132,714	108,822	57,411	n.a.
TOTAL	526,945	568,658	537,759	546,424	573,469	633,352

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1973 through 1979 (East Lansing: annually), and special release.

TABLE VIII-5. NONCRIME INDEX OFFENSES BY TYPE, PER 100,000 INHABITANTS IN MICHIGAN: 1974-1979

Offenses	1974	1975	1976	1977	1978	1979
Negligent manslaughter	2.6	2.3	2.2	3.6	2.1	n.a.
Assault (nonaggravated)	453.8	487.1	481.2	505.3	578.0	635.1
Arson	52.9	60.1	59.4	61.8	62.4	96.7
Forgery and counterfeiting	118.2	108.6	92.2	69.5	63.2	n.a.
Fraud	206.2	229.4	254.3	311.7	360.3	n.a.
Embezzlement	26.4	29.3	31.4	87.2	16.5	n.a.
Stolen property	58.0	59.3	54.2	62.6	75.7	n.a.
Vandalism	1,347.9	1,497.0	1,483.0	1,636.8	1,820.6	n.a.
Weapons (possession, etc.)	131.8	132.9	119.9	108.4	76.3	78.1
Prostitution	7.5	7.9	10.5	10.2	11.0	n.a.
Sex offenses (except rape and prostitution)	85.5	87.9	84.1	95.4	87.9	n.a.
Narcotic laws	319.2	293.7	279.9	265.1	251.7	n.a.
Gambling	5.2	5.5	3.5	3.4	3.5	n.a.
Against family and children	139.5	147.3	132.3	110.8	750.6	n.a.
Driving under the influence	345.5	365.2	340.4	350.3	400.8	489.6
Liquor laws	145.9	177.0	189.6	196.8	201.6	n.a.
Drunkenness	336.3	353.9	333.9	322.8	47.5	n.a.
Disorderly conduct	440.9	536.8	482.2	586.3	805.0	n.a.
Vagrancy	11.2	61.9	14.9	7.8	9.9	n.a.
Other	1,545.4	1,567.2	1,457.8	1,192.0	625.3	n.a.
TOTAL	5,779.8	6,210.1	5,906.8	5,985.6	6,245.9	6,879.0

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1974 through 1979 (East Lansing: annually), and special release.

NOTE: Michigan population of 9,189,000 is Bureau of the Census provisional estimate as of 1 July 1978.

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Alcona	1978	0	3	0	9	240	163	4	257
	1979	1	0	0	12	281	237	8	331
Alger	1978	0	2	2	22	116	152	33	570
	1979	0	2	0	22	98	166	22	540
Allegan	1978	1	24	36	100	635	1,105	117	3,383
	1979	2	23	40	132	785	1,519	158	5,074
Alpena	1978	1	3	5	36	288	726	23	1,312
	1979	0	9	8	32	312	740	61	1,363
Antrim	1978	0	0	7	21	218	275	16	775
	1979	2	2	3	19	249	353	23	763
Arenac	1978	0	3	6	25	205	212	24	585
	1979	0	3	4	26	188	264	22	597
Baraga	1978	1	1	0	9	91	117	16	419
	1979	0	2	2	9	97	154	28	528
Barry	1978	3	6	9	75	469	864	72	3,314
	1979	0	8	8	69	383	906	47	2,673
Bay	1978	8	32	93	408	1,279	3,710	227	8,204
	1979	8	43	92	446	1,411	4,248	303	9,349
Benzie	1978	0	9	4	31	175	393	13	775
	1979	0	4	2	35	129	338	24	925
Berrien	1978	10	70	199	742	3,281	7,601	558	18,051
	1979	10	102	267	898	3,545	8,582	662	20,340
Branch	1978	0	6	5	51	243	634	44	1,609
	1979	0	2	13	27	333	1,074	86	2,339
Calhoun	1978	5	51	152	378	1,982	4,443	250	8,536
	1979	7	58	215	459	1,980	4,730	325	9,132
Cass	1978	2	9	16	181	622	1,106	119	3,193
	1979	3	15	24	167	691	1,419	92	3,559
Charlevoix	1978	0	4	1	27	201	492	32	770
	1979	0	4	8	21	190	464	38	1,061
Cheboygan	1978	0	1	1	23	281	326	26	1,192
	1979	0	2	7	28	268	561	44	1,591

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Chippewa	1978	0	3	3	30	460	904	113	2,973
	1979	2	3	6	38	376	940	87	2,556
Clare	1978	0	10	10	39	872	1,016	54	2,473
	1979	3	7	10	46	805	1,051	52	2,718
Clinton	1978	0	13	9	49	292	749	51	1,861
	1979	0	8	9	61	346	837	63	1,881
Crawford	1978	1	4	8	25	346	290	33	1,047
	1979	0	4	4	18	429	279	20	931
Delta	1978	2	4	6	47	379	832	57	1,747
	1979	2	6	5	67	372	914	59	2,221
Dickinson	1978	2	3	2	16	193	467	37	1,006
	1979	1	0	4	17	164	465	51	1,291
Eaton	1978	0	21	31	92	478	1,894	93	3,246
	1979	3	15	37	94	430	1,955	164	3,215
Emmet	1978	1	4	8	22	248	701	64	1,671
	1979	0	6	5	23	257	659	75	1,631
Genesee	1978	48	185	896	2,828	7,522	17,877	1,839	23,069
	1979	47	261	934	3,096	7,937	20,375	2,009	26,972
Gladwin	1978	1	7	4	25	387	359	30	815
	1979	0	7	4	29	394	493	29	1,186
Gogebic	1978	1	6	6	17	129	403	46	1,477
	1979	0	2	10	18	184	489	91	1,609
Grand	1978	1	11	8	65	450	1,480	102	2,619
Traverse	1979	2	8	27	86	538	1,933	163	3,764
Gratiot	1978	0	11	7	39	302	647	35	2,059
	1979	0	3	11	37	325	723	43	2,209
Hillsdale	1978	0	8	14	87	360	792	50	2,351
	1979	1	20	18	69	528	1,046	64	3,062
Houghton	1978	0	7	7	49	225	528	42	2,412
	1979	2	6	6	40	199	546	46	1,761
Huron	1978	1	3	4	39	224	566	44	2,977
	1979	0	10	3		252	688	46	3,395

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Ingham	1978	11	105	203	642	3,581	9,735	694	15,351
	1979	11	97	236	659	3,381	10,870	808	18,313
Ionia	1978	1	9	13	91	367	940	65	2,607
	1979	0	10	22	70	483	1,342	93	3,021
Iosco	1978	1	8	3	60	474	650	32	1,656
	1979	1	1	3	57	467	817	58	2,025
Iron	1978	0	2	1	13	107	196	10	507
	1979	0	0	1	24	124	205	17	545
Isabella	1978	1	16	7	49	461	1,446	60	3,658
	1979	0	3	13	50	413	1,816	73	4,421
Jackson	1978	11	44	122	605	2,190	4,719	392	11,269
	1979	12	75	123	755	2,521	5,277	394	12,586
Kalamazoo	1978	10	47	258	909	3,169	8,778	524	14,330
	1979	7	104	365	1,105	3,601	9,985	662	15,192
Kalkaska	1978	1	7	2	29	249	241	28	1,035
	1979	0	5	1	41	284	293	34	1,288
Kent	1978	14	184	487	991	5,705	12,652	1,070	26,953
	1979	18	230	671	1,131	6,445	15,228	1,264	31,218
Keweenaw	1978	0	1	0	7	51	43	4	119
	1979	0	0	1	1	35	26	4	100
Lake	1978	3	8	11	27	638	261	16	582
	1979	0	2	5	23	492	276	22	582
Lapeer	1978	0	29	18	69	436	1,234	92	3,495
	1979	2	21	21	67	504	1,461	125	3,766
Leelanau	1978	0	2	1	8	68	173	9	607
	1979	0	3	2	5	72	209	24	813
Lenawee	1978	0	25	41	177	816	2,292	141	7,893
	1979	4	30	49	158	849	2,745	150	6,145
Livingston	1978	4	17	36	188	887	2,104	251	6,980
	1979	2	27	38	173	1,006	2,560	275	7,612
Luce	1978	0	3	0	12	118	146	21	719
	1979	0	2	3	13	94	195	17	739

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Mackinac	1978	0	4	4	31	233	313	23	1,102
	1979	0	1	8	24	224	498	10	1,162
Macomb	1978	26	110	498	1,466	6,221	21,532	3,085	51,248
	1979	26	161	568	1,649	6,689	25,004	4,246	60,369
Manistee	1978	0	5	10	49	360	442	34	1,204
	1979	1	6	6	43	391	643	54	1,260
Marquette	1978	1	15	9	114	483	1,853	142	5,088
	1979	0	14	12	100	544	2,075	141	5,882
Mason	1978	0	5	6	20	232	850	27	2,418
	1979	1	8	8	27	267	780	57	2,314
Mecosta	1978	0	4	7	27	249	1,080	50	2,675
	1979	0	11	18	48	396	1,291	71	3,026
Menominee	1978	1	9	6	23	292	467	37	1,206
	1979	1	2	1	30	296	503	36	1,216
Midland	1978	1	11	45	56	823	1,932	109	4,741
	1979	0	23	108	89	1,054	2,396	155	5,347
Missaukee	1978	1	1	0	5	165	130	6	308
	1979	0	2	2	3	133	133	14	236
Monroe	1978	14	32	63	199	1,112	2,558	407	7,537
	1979	3	23	62	241	1,249	2,855	420	8,225
Montcalm	1978	2	21	21	33	373	480	40	1,432
	1979	0	13	36	35	449	541	59	1,564
Montmorency	1978	0	0	1	2	123	108	13	229
	1979	0	0	3	6	222	168	10	278
Muskegon	1978	7	51	173	700	2,272	6,313	370	10,985
	1979	10	72	223	978	2,550	7,213	367	13,495
Newaygo	1978	0	10	16	40	445	598	35	1,389
	1979	2	11	31	39	572	635	77	1,385
Oakland	1978	40	300	1,363	2,590	12,848	32,997	4,984	74,630
	1979	46	266	1,268	2,777	14,247	37,318	5,464	79,375
Oceana	1978	0	8	4	34	181	281	19	980
	1979	0	10	10	46	238	408	24	986

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Ogemaw	1978	0	5	9	31	450	363	40	1,240
	1979	0	3	7	39	508	435	43	1,573
Ontonagon	1978	0	1	1	1	53	153	11	267
	1979	0	0	1	6	106	137	8	374
Osceola	1978	0	2	4	37	203	253	21	897
	1979	1	6	3	20	246	317	37	1,091
Oscoda	1978	0	3	3	13	225	175	5	424
	1979	0	3	2	12	298	170	9	369
Otsego	1978	0	4	1	24	292	418	18	1,237
	1979	0	10	2	28	300	544	38	1,582
Ottawa	1978	3	23	23	107	918	2,965	181	7,205
	1979	1	21	11	132	853	3,221	175	7,092
Presque Isle	1978	2	0	0	11	129	153	2	277
	1979	2	3	0	11	176	177	8	325
Roscommon	1978	1	7	6	45	509	584	65	2,453
	1979	0	5	7	42	526	702	86	2,550
Saginaw	1978	30	111	389	974	3,696	8,599	533	28,152
	1979	31	152	374	1,215	3,927	9,765	666	29,526
St. Clair	1978	3	32	81	232	1,859	4,303	324	12,759
	1979	1	43	77	197	2,002	4,873	344	13,390
St. Joseph	1978	1	18	28	94	480	1,295	81	4,424
	1979	3	11	16	83	478	1,395	76	4,468
Sanilac	1978	0	5	9	53	403	545	56	2,080
	1979	1	10	6	56	467	703	92	2,509
Schoolcraft	1978	0	3	1	18	166	193	14	603
	1979	0	3	2	17	124	173	23	659
Shiawassee	1978	1	11	19	113	667	1,493	106	3,810
	1979	3	16	18	120	759	1,918	170	4,042
Tuscola	1978	1	8	8	88	404	783	96	2,616
	1979	1	17	19	94	491	927	118	2,838
Van Buren	1978	3	26	33	264	989	1,736	123	5,079
	1979	2	29	60	228	944	1,732	191	5,410

TABLE VIII-7. ACTS OF ARSON IN MICHIGAN BY TYPE OF PROPERTIES INVOLVED: 1979

Type of property	Incendiary acts	Suspicious acts	Total
Public assembly	145	103	248
Educational			
College	7	5	12
High school	54	26	80
Junior high	27	20	47
Elementary	64	28	92
Other	10	4	14
Day care center	3	2	5
Hospital	18	8	26
Nursing home	3	3	6
Police station	10	3	13
Other institution	17	6	23
Residence			
1 and 2 family	1,170	933	2,103
Apartment, tenement, flat	331	253	584
Rooming, lodge, dormitory	12	17	29
Mobile and other	65	57	122
Mercantile stores	172	171	343
Office	43	15	58
Utilities	6	5	11
Industrial manufacturing	39	46	85
Barn	42	83	125
Lumberyard	4	3	7
Other storage	400	442	842
Construction	63	71	134
Forest fires	8	21	29
Other special	2,935	3,371	6,306
Subtotal fixed	5,648	5,696	11,344
Mobile-passenger and recreation	1,022	958	1,980
Other	407	605	1,012
Subtotal mobile	1,429	1,563	2,992
TOTAL	7,077	7,259	14,336

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1978 AND 1979 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Washtenaw	1978	16	107	306	741	3,433	9,602	1,263	17,252
	1979	9	111	391	924	3,900	11,315	1,482	18,479
Wayne	1978	562	1,626	14,273	10,902	46,619	75,404	27,955	109,129
	1979	511	1,754	13,462	11,332	46,784	78,245	31,275	119,915
Wexford	1978	0	5	10	40	299	876	45	1,684
	1979	1	10	6	62	417	980	71	2,107
TOTAL	1978	862	3,614	20,192	28,661	130,716	279,261	47,995	573,469
	1979	810	4,085	20,168	31,261	138,074	312,643	55,142	633,352

SOURCE: Michigan Department of State Police, special release.

TABLE VIII-8. ACTS OF ARSON IN MICHIGAN BY TYPE OF MATERIAL USED: 1979

Type of material	Incendiary acts	Suspicious acts	Total
Gas	43	27	70
Flammable or combustible liquid	1,041	352	1,393
Volatile solid	27	17	44
Chemical, metal, plastic, paint	130	95	225
Natural product	1,521	1,731	3,252
Wood, paper	2,574	2,755	5,329
Fabric, textile, fur	691	710	1,401
Treated material	37	26	63
Other or undetermined	1,013	1,546	2,559
TOTAL	7,077	7,259	14,336

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

TABLE VIII-9. TOTAL VALUE, VALUE OF LOSS, VALUE OF INSURANCE OF PROPERTY AND CONTENTS INVOLVED IN MICHIGAN ARSONS: 1979

(In millions of dollars)

	Incendiary acts	Suspicious acts	Total
Property insurance	459,989,377	398,330,601	858,319,978
Contents insurance	114,554,432	85,466,162	200,020,594
Total insurance	574,543,809	483,796,763	1,058,340,572
Property value	143,500,903	602,611,069	746,111,972
Contents value	484,148,221	170,111,741	654,259,962
Total value	627,649,124	772,722,810	1,400,371,934
Property loss	17,667,088	14,622,737	32,289,825
Contents loss	6,490,776	5,608,086	12,098,862
Total loss	24,157,864	20,230,823	44,388,687

SOURCE: Michigan Department of State Police, Fire Marshal Division, special release.

Statistics on governmental organization are collected on the occasion of each Census of Governments conducted by the U.S. Bureau of the Census. That census also is a source of considerable detail on government financing and employment, the subject of chapter X.

Other major sources of information regarding Michigan government organization are the biennial Michigan Manual, the Journal of the Senate, and the Journal of the House. In addition, The Book of the States presents information on all states and is a good source for comparative statistics.

Table IX-11 is the only table in the chapter which gives an indication of the Michigan legislature's output. It presents some of the scarce readily quantifiable data describing the legislature. For those interested in assessing legislative performance, the Citizens Conference on State Legislatures has developed "The Legislative Evaluation Study." This body is a national, nonprofit, nonpartisan organization whose purpose is to help state legislatures improve themselves.

On 1 June 1977 revised Michigan laws relating to campaign financing took effect. As under the old laws, the spending reports of candidates for state office will be on file with the Secretary of State. However, the responsibility for filing is shifted to the candidate (or treasurer of a committee) instead of resting with the county clerk. Reports still must be filed with the clerk of the county in which the candidate resides.

There is a spending limit of one million dollars for gubernatorial candidates who accept "qualifying contributions" (the state counterpart of federal matching funds). There no longer are spending limits for other offices.

In addition to the filing and expenditure alterations, an organizational change has been made. Each candidate must have only one "candidate committee." Candidates choosing to have more than one committee must report these as "other committees." The Secretary of State is to keep the records on file by committee name (I.D. code) only, not by the candidate supported or by office and district. This represents a significant departure from the past, when committees supporting a candidate were filed together under the appropriate district and office.

The Detroit News Magazine of 4 March 1979 carried an interesting article on the state capitol, from which we quote.

> The decision to build the capitol in Lansing came only after months of haggling in the state legislature. When Michigan was granted statehood in 1837, Detroit was named the temporary capital, with the stipulation that a permanent site be selected by 1847. That year, the legislature became embroiled in seemingly endless debate as representatives from competing villages and towns tried to win selection as the location for the new capital building.

> When the legislative clerk finally announced that the capital city would be placed in the township of Lansing, loud guffaws resounded through the chambers. Some legislators thought it was a joke since Lansing township was little more than a virgin forest on the Grand River, populated by a few log cabin families. Yet, two months later, the measure was passed and signed into law by Governor William L. Greenly. The taming of the wilderness had begun.
>
> But what to call that wilderness was another matter. No one could agree on a name for the new capital. Among those considered were Thorbush, Marcellus, Swedenborg, Algoma, and Pewanogawink. For the first two months, the capital was called Michigan until the legislators grew tired of the repetitive Michigan, Michigan, address and finally settled on Lansing.
>
> Around 1861, rumblings over the inadequacy of the legislative facilities began. Governor Henry P. Baldwin was the first to suggest building a new capitol. In 1871, he persuaded the penny-pinching Grangers to go along.

A pamphlet published by WVIC radio station in Lansing contains additional information about the building; a paraphrase follows.

The state capitol, which stands on eleven acres of land, was dedicated on 1 January 1879. It took six years to complete the building, which cost $1.5 million. Its construction required 15 million bricks, 16,000 square yards of plaster, copper from the Upper Peninsula, stone from five states, tin from Wales, and plate glass from England. On 24 January 1872, the Tuebor ("I will defend") design of Elijah E. Meyers, a self-taught architect from Illinois, was chosen over 22 others. Done in the Palladian style, his cruciform floor plan with high central dome was simple and relatively inexpensive to construct.

The cornerstone was laid on 2 October 1873. It contained a copper receptacle holding 48 items, among them a copy of the state's constitution, a Bible, a history of Michigan, coins, and a report on crime and pauperism in the state. (When the cornerstone was uncovered during rebuilding activity in November 1978, it was discovered that most of the contents had been virtually destroyed by moisture). The cornerstone weighed five tons and was quarried from Cape Ann, Massachusetts. At the ceremony, 35,000 people watched a parade of 5,000 persons, including 25 bands, march down Michigan Avenue. Governor John J. Bagley gave a short speech before the stone was lowered into place.

The main portico of the capitol is supported by six Tuscan columns 20 feet high. Above are Ionic columns, then elaborate Corinthian columns under the balcony at the base of the dome. The statuary on the east pediment was designed by Louis T. Ives. It was sculpted by 28-year-old

Herman Wehner, who emigrated to Saginaw from Prussia at age six. The bas-reliefs include three female figures. The central one, in Indian garb, represents Michigan. In one hand she holds a book, in the other a globe. To her right is Agriculture, to her left Commerce.

The twelve entrance doors--six at the front portico and two at each of the other entries--were fashioned from solid black walnut. They measured more than 14 feet high and almost three inches thick. Doorknobs throughout the building were made of Michigan copper, adorned with apple blossoms or harvest scenes.

The building contained 268 rooms, two grand staircases, and an unusual steam elevator running from the basement to the fourth floor. The oak and iron elevator was handsomely furnished with French veneered panels, moldings and carved work of highly variegated black walnut, stained glass, and a leather sofa.

More than 1,700 gas burners were installed throughout the capitol. Most were lit by hand, but 371 had intricate wiring systems that permitted "electrical ignition." There were also networks for call bells and speaking tubes. The nineteen chandeliers, made of Keweenaw Peninsula copper, each weighed 300-400 pounds. They were designed by Tiffany's in New York, and the state seal appears on each.

The ceilings for the legislative halls were designed by George Mish and Brothers. The seals of each state were etched on panels of ruby and white glass, and the Great Seal of the United States was placed over the entrance to each chamber. In all, 170 panels were imported from Ravenshead and Sutton of Lancashire, England.

The dome of galvanized iron, with the lantern, is 267 feet above ground level. It covers the most impressive part of the building, the Rotunda, visible from three stories inside the capitol. The Rotunda floor is 44.5 feet in diameter and contains 976 blocks of glass. Light from below gives the optical illusion of a dome underneath. The ceilings in the Rotunda and corridors are done in fresco and have never been retouched.

At 9:30 a.m. on 1 January 1879, Governor Charles Crosswell accepted the building for the people of Michigan, the new legislature was convened, and 30 legislators took their seats.

The Detroit News Magazine notes that at the time the capitol was completed,

> Michigan's population was 1.5 million, and the state budget was $2 million. The capitol had only four full-time employees, and temporary help was hired when the legislature convened for five months every two years. Most of the lawmakers were farmers, who were paid $3 a day. Their only office space was the area in and around their desks.

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TABLE IX-1. NUMBER OF LOCAL GOVERNMENTAL UNITS IN MICHIGAN AND THE UNITED STATES, BY TYPE: 1942, 1952, 1957, 1962, 1967, 1972, AND 1977

Type	1942	1952	1957	1962	1967	1972	1977
				Michigan			
Counties	83	83	83	83	83	83	83
Municipalities	479	489	498	509	522	532	531
Townships	1,265	1,264	1,262	1,259	1,253	1,248	1,245
Special districts	8	84	102	99	110	139	171
School districts	6,270	4,845	3,214	1,866	935	647	608
TOTAL	8,105	6,766	5,159	3,816	2,903	2,649	2,638
				United States			
Counties	3,050	3,049	3,047	3,043	3,049	3,044	3,042
Municipalities	16,220	16,778	17,167	17,997	18,048	18,517	18,856
Townships	18,919	17,202	17,214	17,144	17,105	16,991	16,822
Special districts	8,299	12,319	14,423	18,323	21,264	23,885	26,140
School districts	108,579	67,346	50,453	34,678	21,782	15,781	15,260
TOTAL	155,116	116,743	102,353	91,185	81,248	78,218	80,120

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1945 through 1975 (Washington, D.C.: annually), Table 415 (1975), and 1977 Census of Governments, Preliminary Report No. 1, Governmental Units in 1977 (Washington, D.C.: 1977), pp. 1, 6.

TABLE IX-2. REPORTED VOTING AND REGISTRATION OF PERSONS OF VOTING AGE, BY SEX AND AGE GROUP, MICHIGAN, THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, AND THE UNITED STATES: NOVEMBER 1978

Age group	Both sexes		Male		Female	
	Percent reported registered	Percent reported voted	Percent reported registered	Percent reported voted	Percent reported registered	Percent reported voted
			Michigan			
18 - 24	51.5	34.6	45.4	30.9	57.5	38.3
25 - 44	70.7	52.1	66.7	50.7	74.5	53.4
45 - 64	79.3	64.8	79.6	64.7	78.9	65.0
65 and older	75.2	60.6	78.5	65.5	73.1	57.4
TOTAL	70.1	53.6	67.6	52.5	72.3	54.5
			Detroit SMSA			
18 - 24	47.9	32.0	44.5	29.9	51.4	34.1
25 - 44	67.7	49.0	64.0	48.0	70.9	49.9
45 - 64	78.2	64.7	79.0	63.9	77.4	65.4
65 and older	72.5	63.4	78.1	71.6	69.0	58.2
TOTAL	67.3	51.8	65.7	51.2	68.8	52.5
			United States			
18 - 24	40.5	23.5	39.5	23.2	41.5	23.8
25 - 44	60.2	43.1	59.5	42.5	60.9	43.6
45 - 64	74.3	58.5	75.0	59.8	73.7	57.4
65 and older	72.8	55.9	77.6	62.6	69.5	49.7
TOTAL	62.6	45.9	62.6	46.6	62.5	45.3

SOURCE: Bureau of the Census, Current Population Reports, Series P-20, No. 344 (Washington, D.C.: 1979), Tables 2, 5, and 6.

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1979-1980

County	Seat	Prosecuting Attorney	Clerk
Alcona	Harrisville	James H. Cook, (R)	Anne C. Moore, (R)
Alger	Munising	William A. Werner, (D)	John P. Carr, (D)
Allegan	Allegan	Fred R. Hunter, III, (R)	Russell Sill, (R)
Alpena	Alpena	Theodore O. Johnson, (D)	Clara H. Noack, (R)
Antrim	Bellaire	James G. Young, (R)	Laura Dunson, (R)
Arenac	Standish	Jack W. Scully, (R)	Douglas C. Black, (R)
Baraga	L'Anse	F. Hubert Mather, (D)	Bernard J. Lambert, (D)
Barry	Hastings	James H. Fisher, (R)	Norval E. Thaler, (R)
Bay	Bay City	George Mullison, (D)	Steven Toth, (D)
Benzie	Beulah	John D. Berlin, (R)	Jean Bowers, (R)
Berrien	St. Joseph	John A. Smietanka, (R)	Forrest H. Kesterke, (R)
Branch	Coldwater	John L. Livesay, (R)	Raymond H. Ehl, (R)
Calhoun	Marshall	James Norlander, (R)	Marcus J. Gray, (D)
Cass	Cassopolis	William T. Grimmer, (R)	Kenneth M. Poe, (R)
Charlevoix	Charlevoix	Scott T. Beatty, (R)	Clarence F. Rabach, (R)
Cheboygan	Cheboygan	Michael J. Hackett, (R)	Joanne C. Spray, (D)
Chippewa	Sault Ste. Marie	Farrell E. Elliott, (R)	Judson P. Swart, (R)
Clare	Harrison	Richard S. Allen, Jr., (R)	Ruth Stanley, (R)
Clinton	St. Johns	Jon W. Newman, (R)	Jane Swanchara, (R)
Crawford	Grayling	Thomas E. Kent, (R)	Leo E. Lovely, (R)
Delta	Escanaba	Robert E. Godbel, Jr., (R)	Michael R. Albert, (D)
Dickinson	Iron Mt.	Robert G. Foster, (R)	Frank Sleik, (D)
Eaton	Charlotte	Paul F. Berger, (R)	Kathryn I. Bosworth, (D)
Emmet	Petoskey	John F. Salan, (R)	Harriet L. Kilborn, (R)
Genesee	Flint	Robert F. Leonard, (D)	Michael J. Carr, (D)

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1979-1980 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Gladwin	Gladwin	Joseph McCarthy, (R)	William H. Hall, (R)
Gogebic	Bessemer	Anders B. Tingstad, Jr., (D)	Melvin R. Peterson, (D)
Grand Traverse	Traverse City	John D. Foresman, (R)	Anita Kucera, (R)
Gratiot	Ithaca	Richard D. Gay, (R)	Eva M. Smith, (R)
Hillsdale	Hillsdale	Ronald C. Zellar, (R)	Doris June Pish, (R)
Houghton	Houghton	Sterling W. Schrock, (D)	Raymond J. Hosking, (D)
Huron	Bad Axe	Peter B. Capling, (R)	Edward A. Swackhamer, (R)
Ingham	Mason	Peter Houk (D)	Lingg Brewer, (D)
Ionia	Ionia	Lawrence P. McKaig, (R)	Phyllis Brown Laviolette, (R)
Iosco	Tawas City	Stephen H. Naegele, (R)	D. Keith Papas, (R)
Iron	Crystal Falls	Torger Omdahl, (D)	Klaryce Bilski, (D)
Isabella	Mt. Pleasant	Joseph Barberi, (R)	Betty Prout, (R)
Jackson	Jackson	Edward J. Grant, (R)	Jean S. Kahn, (R)
Kalamazoo	Kalamazoo	James J. Gregart, (R)	Phillip Hassing, (R)
Kalkaska	Kalkaska	Philip J. Crowley, (D)	Patricia Rodgers, (R)
Kent	Grand Rapids	David H. Sawyer, (R)	Jack Bronkema, (R)
Keweenaw	Eagle River	Paul Tomasi, (D)	Ethel Ketola, (R)
Lake	Baldwin	Edward C. Duckworth, (D)	Lucinda K. Keefer, (R)
Lapeer	Lapeer	Earl H. Morgan, Jr., (R)	Mary Ellen Thick, (R)
Leelanau	Leland	Larry J. Nelson, (R)	Dorothy L. Wunderlich, (R)
Lenawee	Adrian	Harvey A. Koselka, (R)	Patricia J. Johnston, (R)
Livingston	Howell	Frank R. Del Vero, (R)	Joseph H. Ellis (R)
Luce	Newberry	James P. Hoy, (R)	Eva C. Danielson, (R)
Mackinac	St. Ignace	Prentiss M. Brown, (D)	Arthur A. Kaminsky, (R)
Macomb	Mt. Clemens	George N. Parris, (D)	Edna Miller, (D)

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1979-1980 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Manistee	Manistee	Dennis L. Keleher, (R)	Emily Iverson, (R)
Marquette	Marquette	Gary L. Walker, (D)	Henry A. Skewis, (D)
Mason	Ludington	Martin M. Holmes, (D)	Ivan J. Anthony, (R)
Mecosta	Big Rapids	Charles B. Woodruff, (R)	Elda H. Wells, (R)
Menominee	Menominee	Craig Rolfs, (R)	Kenneth C. Krause, (D)
Midland	Midland	Doyle A. Rowland, (R)	Michael D. Hayes, (R)
Missaukee	Lake City	Gary C. Hoffman, (R)	Don Molitor, (R)
Monroe	Monroe	Michael W. LaBeau, (D)	Warren J. LaBeau, (D)
Montcalm	Stanton	Edward L. Skinner, (R)	Nyle B. Irskin, (R)
Montmorency	Atlanta	David F. Tibbetts, (R)	M. Jeanne Clement, (R)
Muskegon	Muskegon	Gerald Warner, (D)	Margaret H. Greenwood, (R)
Newaygo	White Cloud	Keith Schuiteman, (R)	Maxwell L. Jordan, (R)
Oakland	Pontiac	L. Brooks Patterson, (R)	Lynn D. Allen, (R)
Oceana	Hart	William F. Hanna, (R)	Elizabeth A. Field, (R)
Ogemaw	West Branch	Louis E. Traycik, (R)	Edwin D. Ostrander, (R)
Ontonagon	Ontonagon	Roy D. Gotham, (D)	Bernice M. Huotari, (D)
Osceola	Reed City	James C. Thompson, (R)	Carl L. Wyman, (R)
Oscoda	Mio	Hugo L. Burzlaff, (R)	Paul F. Starry, (R)
Otsego	Gaylord	John Murray Dennany, (R)	Theodore W. Werts, (R)
Ottawa	Grand Haven	Wesley J. Nykamp, (R)	Daniel C. Kreuger, (R)
Presque Isle	Rodgers City	Larry R. Farmer, (D)	Ruth M. Doyle, (D)
Roscommon	Roscommon	Michael J. Baumgartner, (D)	Robert W. Smith, (R)
Saginaw	Saginaw	Robert L. Kaczmarek, (R)	Gladys June Ormsby, (D)
St. Clair	Port Huron	Peter E. Deegan, (R)	Marion Sargent, (R)
St. Joseph	Centreville	James Noecker, (R)	Beverly J. Burnham, (R)

X. GOVERNMENTAL FINANCE AND EMPLOYMENT

According to preliminary estimates from the Tax Foundation, Inc., and the Bureau of the Census, Michigan's tax burden reached a new peak during 1979. Combined federal, state, and local levies of $31 billion were 37.2 percent as great as the state's total personal income. The national figure was 36.2 percent. The 1978 figures were 34.8 percent (Michigan) and 35.5 percent (United States).

Federal taxes provided the major impetus. Local tax burdens increased by small amounts both here and in the nation as a whole. Nationally, state taxes as a percentage of personal income dropped, whereas in Michigan they rose slightly. Michigan redesigned its tax structure in 1976, making it relatively inelastic with respect to income. In contrast, during the previous decline in the general level of economic activity in Michigan, during 1974 and 1975, the state tax burden declined. Local taxes have always been relatively inelastic because the stable property tax is a major component (see Tables X-1 and X-2).

As it is used here, tax burden refers to the relationship between taxes and personal income. This yardstick is crude, among other reasons because not inconsiderable proportions of taxes are levied on businesses, not households. Michigan's Single Business Tax is an example. While it is no doubt true that businesses pass their taxes on to the consumer to the extent possible, it is also true that the tax is reflected in reduced earnings by stockholders, management, and labor. Finally, the SBT is, to an unknown extent, passed on to consumers and stockholders in other states.

The federal tax burden is approximately double the combined state and local levies. However, some of that money is returned through federal aid to state and local government units. During 1979, about one of every six dollars in federal taxes was returned in this way. In 1976, a year of relatively low taxation compared with the average of the past decade, Washington returned more than 20 percent. Consequently, the net burden of federal taxes in Michigan increased even more sharply than the gross, from 17.6 percent during 1976 to 21 percent in 1979. State governments have borne the brunt of Washington's parsimony with the taxes it collects.

States also have revenue sharing programs with local units. In Michigan, portions of the personal income tax, cigarette tax, alcoholic beverage taxes, sales tax, inheritance tax, and intangibles tax are earmarked for schools, cities, villages, townships, and counties, as well as for the state general fund. The state also makes grants to local units from its general fund. During 1979, the ratio of state aid to personal income in Michigan was the same as it was during 1976, whereas nationally the figure declined.

Tax figures adjusted for revenue sharing reveal a large increase in the federal burden, a modest increase in the state burden, and a modest decline in the local burden since 1976. In comparison with 1968, the local burden has gained most rapidly, followed by the state, with a modest increase at the federal level. Over the decade, there has been a very rapid rise in federal revenue sharing and a small gain in state revenue sharing.

Governments also collect various fees and a miscellany of other revenues. Among state and local units, this "all other" category has

grown rapidly. However, it still is a minor source of revenue, accounting for about 18 percent of state and local resources in this state (3.8 as a percentage of personal income).

Spending figures for all units of government for 1979 have not been compiled at this writing. Those for 1978 show that the burden of national defense declined substantially between 1968 and 1976, and that trend has continued. Federal direct expenditure from trust funds grew substantially more rapidly than did income between 1968 and 1976, and the trend has continued. Social Security is the major federal trust fund. Others are federal employee retirement, railroad retirement, and veterans' life insurance. Trust fund expenditures surpassed outlays for national defense during the mid-1970s, and by 1978 the difference amounted to $16 billion, or one percent of the total personal income statistic.

The combined burden on taxpayers of public welfare, health, and veterans' programs administered from Washington grew rapidly between 1968 and 1976. Since then, these social service and income maintenance programs have declined relatively.

The overall trend of a decade of diminishing importance of direct federal expenditure might seem to contradict the increasing burden of federal taxes. It has happened that way because of revenue sharing, between 1968 and 1976, and because of a drop in the size of the deficit in federal government finances since 1976.

Among other things, the 1970s will be known for the enormous pressures on state governments, particularly the one in Lansing. By 1975, the number of people drawing welfare checks in this state had more than tripled. The nation, including Michigan, was caught in a crime wave. Cleaning up the environment became urgent. The inevitable result: escalating costs of public welfare, police and fire protection, waste treatment, and general government control. From a rank of 26 in state and local government expenditures as a percentage of 1968 personal income, Michigan shot to 23 in 1976. In addition to taxpayers, students and faculty at Michigan's colleges and universities bore the brunt. State appropriations for higher education declined from 1.2 percent to one percent of personal income. Highway spending and state aid for schools kept pace with the general growth of the Michigan economy.

By 1978, the welfare crunch had abated, and spending for highways had declined in importance. This enabled the state to shift resources to public schools, but local support has decreased as a percentage of more personal income; consequently, the burden of providing high school degress has diminished since 1976, both in Michigan and in the nation.

Overall, toward the end of the decade, the financial burden of state and local government was slightly less than the national average in this state, whereas in the mid-1970s it was appreciably greater.

There were approximately 3.5 million people in the armed forces during the late 1960s; by the late 1970s, that figure had declined to about 2 million. The number of federal civilian employees has remained nearly constant, at approximately 2.8 million. Overall, therefore, federal employees have been a sharply declining component of the population. The pay of federal employees declined from 6.3 percent of personal income in 1968, to 4.9 percent in 1976, to 4.5 percent in 1978. Federal

administration is costing less and less, in this sense, because Washington is merely shifting financial resources from some sectors of the economy to others.

State and local administrations have grown rapidly, however, because theirs has been the primary responsibility for responding to the country's rising demand for social services. The employment figures in Table X-30 reflect the dollar shifts discussed above. Welfare administration has gained dramatically, while that for highways has declined. Law enforcement and correction have gained. The relative number of teachers per 10,000 population increased between 1968 and 1976, a period of increasing enrollment in public schools, and has continued to increase since, despite declining enrollments. This phenomenon is even more pronounced in Michigan than nationally. Moreover, since 1976, Michigan teachers' salaries have increased much more rapidly than government salaries generally and more rapidly than college faculty salaries. Notwithstanding the strains imposed by welfare, crime, and pollution, the 1970s were golden years for public school teachers, just as the 1960s were for college professors in this state.

This chapter is arranged differently from the 1979 edition. It begins with a consolidation of government accounts from the taxpayer's point of view (Tables X-1 and X-2). Data on the federal tax burden are rough estimates prepared by the Tax Foundation, Inc., a nonprofit research foundation. In developing figures for each state, the Tax Foundation allocates individual income tax liabilities on the basis of data reported by the Internal Revenue Service in its Statistics of Income series, the same documents from which Tables X-3 and X-4 were developed. The geographic burden of the Corportion Income Tax is based on the geographic distribution of personal and property income; the assumption is that one-half of the levy is passed on to consumers through prices, and the other half is shifted backward to property owners in general. Property income is a component of personal income, accounting for roughly one-seventh of that aggregate. Estate and gift taxes are assumed to be distributed according to the previous six years' total of estate and gift taxes as reported in the Annual Report of the Commissioner of Internal Revenue. Excise taxes on alcoholic beverages are assumed to follow the geographic pattern of consumption of distilled spirits, malt beverages, and wines. The state-by-state distribution of tobacco taxes is patterned after population. Similar procedures are used to estimate other federal revenues, in each case employing the most appropriate allocator.

State and local revenue data are collected by the Bureau of the Census in its quinquennial Census of Governments, the latest of which covers 1977. For interim years, the Bureau of the Census develops statistics based on a sample of local governments in each state, along with reports from the District of Columbia and each of the fifty states. No agency, public or private, assesses the geographic burden of state and local revenues in a manner parallel to the Tax Foundation's assessment of the federal tax burden. This means that the Michigan Single Business Tax,

for example, is assumed to be borne entirely by residents of this state (Tables X-1, X-2, and so forth), although it is certainly exported, to some extent, with every car and truck that rolls from an assembly line destined for another state or country. Similarly, part of the wellhead taxes levied in Texas, Louisiana, Oklahoma, and Wyoming are paid, in the final analysis, by Michiganians and other Americans.

For a number of reasons, the data published by the Bureau of the Census vary from those published in the Michigan State Tax Commission's State of Michigan Financial Report, and by other in-state sources. The major reason for frequent disagreement is the inclusion of publicly owned community colleges, colleges, and universities in the Bureau of the Census definition of government. In Tables X-8 and X-9, current charges for education include student tuition and fees paid to state and locally operated colleges and universities; Tables X-19 and X-20 include expenditures of these institutions (pay to faculty, and so forth). In Tables X-5 and X-10, student fees, tuition, and other revenues derived independently by higher education are not included as part of state revenues; Table X-21 reports only expenditures for higher education that the state spends, not the total amount expended by the institutions themselves. Interested readers are encouraged to consult the chapter on education.

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TABLE X-1. STATE AND LOCAL TAX COLLECTIONS AND FEDERAL TAX BURDEN IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1960-1979

(Millions of dollars)

	Federal		States		Local		Total	
Fiscal year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1960	4,094	87,853	913.9	18,035.9	787.5	18,080.7	5,795.4	123,969.6
1961	n.a.	n.a.	969.2	19,057.5	871.4	19,803.8	n.a.	n.a.
1962	4,217	94,329	1,007.5	20,561.1	888.7	20,993.0	6,113.2	135,883.1
1963	n.a.	n.a.	1,142.7	22,166.7	959.4	22,164.3	n.a.	n.a.
1964	4,617	106,317	1,220.2	24,242.7	1,001.8	23,542.1	6,839.0	154,101.8
1965	n.a.	n.a.	1,328.6	26,126.1	1,052.5	25,451.4	n.a.	n.a.
1966	5,590	123,402	1,467.7	29,379.8	1,127.6	27,360.8	8,185.3	180,142.6
1967	n.a.	n.a.	1,530.8	31,926.0	1,184.4	29,074.0	n.a.	n.a.
1968	6,982	143,950	1,885.6	36,400.2	1,319.3	31,171.4	10,186.9	211,521.6
1969	n.a.	n.a.	2,248.8	41,930.7	1,505.4	34,781.2	n.a.	n.a.
1970	8,936	186,947	2,345.1	47,962.0	1,697.9	38,833.3	12,979.0	273,742.3
1971	n.a.	n.a.	2,543.9	51,541.2	1,876.7	43,434.0	n.a.	n.a.
1972	8,949	193,697	3,062.4	59,870.0	2,184.7	49,739.0	14,196.1	303,306.0
1973	n.a.	n.a.	3,527.6	68,069.3	2,216.9	53,032.4	n.a.	n.a.
1974	11,492	243,467	3,681.2	74,207.0	2,497.8	56,515.0	17,671.0	374,189.0
1975	n.a	n.a.	3,486.0	80,154.9	2,757.0	61,310.1	n.a.	n.a.
1976	12,919	278,420	3,769.5[a]	89,255.5	3,049.8	67,557.4	19,738.3	435,232.9
1977	n.a.	n.a.	4,843.7	101,084.0	3,137.9	84,851.6	n.a.	n.a.
1978	17,357	389,164	5,444.9	113,260.9	3,365.9	80,380.8	16,168.0	582,806.0
1979	20,737	450,816	6,018.0	125,120.0	n.a.	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, 1977 Census of Governments, Compendium of Government Finances (Washington, D.C.: 1979), vol. 4, no. 5, Tables 3 and 47, and similar documents for 1957 (Table 24), 1962 (Table 25), 1967 (Table 23), and 1972 (Table 23); Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), Table 6, and similar documents for other years between quinquennial Censuses of Governments; and Tax Foundation, Inc., Facts and Figures on Government Finance, 1958-59 through 1979 (New York: biennially), Table 101 (1978), and special release (1970-1971, 1972-1973, 1974-1975, and 1976-1977 data).

a. Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. During the fiscal year ended 30 June 1976, state tax collections totaled $3,769,500,000. If the fiscal year had ended 30 September 1976, they would have totaled around $4,200,000,000.

n.a.: not available.

TABLE IX-3. COUNTY SEATS, PROSECUTING ATTORNEYS, AND CLERKS OF MICHIGAN COUNTIES: 1979-1980 (cont.)

County	Seat	Prosecuting Attorney	Clerk
Sanilac	Sandusky	J. Anthony Sykora, (R)	Lawrence R. Smith, (R)
Schoolcraft	Manistique	John Thompson, (D)	Ferdinand Lesica, (D)
Shiawassee	Corunna	Gerald D. Lostracco, (R)	Elna M. Thatcher, (R)
Tuscola	Caro	Artis M. Noel, (R)	Elsie Kicks, (R)
Van Buren	Paw Paw	Ward "Steve" Hamlin, (R)	C. E. MacDonald, (R)
Washtenaw	Ann Arbor	William F. Delhey, (R)	Robert M. Harrison, (R)
Wayne	Detroit	William L. Cahalan, (D)	James. R. Killeen, (D)
Wexford	Cadillac	Burton A. Hines, Jr., (R)	Keith G. Knudsen, (R)

SOURCE: Michigan Department of Management and Budget, County Officers Sheet 1979-1980 (Lansing: 1979).

(R): Republican

(D): Democrat

TABLE IX-4. LEGISLATIVE AND EXECUTIVE ACTION ON BILLS: 1958-1979

Year	House activity			Senate activity			Gubernatorial action	
	House bills introduced	House bills passed House	Senate bills passed House	Senate bills introducted	Senate bills passed Senate	House bills passed Senate	Bills presented to the Governor	Bills vetoed[a]
1958	589	255	100	341	135	137	237	6
1959	659	272	121	392	159	162	283	5
1960	552	171	70	245	103	97	167	3
1961	681	252	103	396	171	155	258	17
1962	782	244	92	458	150	161	253	10
1963	840	239	87	383	177	167	254	3
1964	958	250	112	529	215	193	305	8
1965	1,031	377	178	699	287	264	442	26
1966[b]	1,021	394	106	539	184	260	366	15
1967[b]	1,300	267	152	823	239	168	320	0
1968	971	276	147	585	241	225	372	12
1969	1,924	310	159	1,114	321	198	357	11
1970	974	336	112	669	197	151	264[c]	10
1971	1,841	376	99	1,112	204	136	235	2
1972	578	218[d]	131	383	140	257[d]	388[c]	8
1973	1,526	275	105	1,071	178	123	215	5
1974	792	264	141	935	163	251	300	3
1975	1,877	420	114	1,247	208	246	344	8
1976	782	278	176	497	199	294	468	14
1977	1,835	396	105	1,285	200	225	322	3
1978	914	430	219	460	284	433	657	15
1979	1,369	283	85	903	176	146	225	5

SOURCE: State of Michigan, Journal of the Senate 1974 (Lansing: annually), p. 2390, and special release.

a. One veto was overriden during 1977.
b. Including extra session.
c. In 1970 the legislature recalled one bill; in 1972, two.
d. Bills introduced in the first year of a new legislature carry over into the second year; since 1972 was the second year of the 76th legislature, the excess of House bills passing the Senate over those passing the House is explained.

TABLE X-2. TAXES, FEDERAL AID, AND STATE AID AS A PERCENTAGE OF TOTAL PERSONAL INCOME, MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1968-1979

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Tax burden												
Federal taxes												
Michigan	23.0	n.a.	24.2	n.a.	21.8	n.a.	22.3	n.a.	22.2	n.a.	23.0	25.1
United States	22.3	n.a.	23.9	n.a.	21.8	n.a.	22.1	n.a.	21.2	n.a.	23.5	24.2
State taxes												
Michigan	6.2	6.6	6.4	6.7	7.4	7.7	7.1	6.5	6.6	7.2	7.2	7.3
United States	5.6	5.9	6.1	6.2	6.7	6.9	6.7	6.7	6.8	7.0	7.0	6.9
Local taxes												
Michigan	4.3	4.4	4.6	4.9	5.3	4.8	4.9	5.1	5.2	4.8	4.6	4.8[a]
United States	4.8	4.9	5.0	5.2	5.6	5.4	5.1	5.1	5.1	5.2	5.0	5.1[a]
State & local taxes												
Michigan	10.5	11.0	11.0	11.6	12.7	12.5	12.0	11.6	11.8	12.0	11.8	12.1
United States	10.4	10.8	11.1	11.4	12.3	12.3	11.8	11.8	11.9	12.2	12.0	12.0
Federal, state, & local taxes												
Michigan	33.5	n.a.	35.2	n.a.	34.5	n.a.	34.3	n.a.	34.0	n.a.	34.8	37.2
United States	32.7	n.a.	35.0	n.a.	34.1	n.a.	33.9	n.a.	33.1	n.a.	35.5	36.2
Federal aid												
To state government												
Michigan	1.9	1.9	1.0	2.3	2.6	2.9	2.7	3.0	3.3	3.0	2.9	2.8[a]
United States	2.4	2.4	2.5	2.7	3.0	3.2	2.9	3.0	3.2	3.2	3.1	3.0[a]
To local government												
Michigan	.2	.2	.3	.4	.6	.9	.8	.9	1.3	1.2	1.3	1.3[a]
United States	.3	.3	.3	.4	.5	.8	.9	.9	1.0	1.1	1.2	1.2[a]

TABLE X-2. TAXES, FEDERAL AID, AND STATE AID AS A PERCENTAGE OF TOTAL PERSONAL INCOME, MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1968-1979 (cont.)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
						Federal aid (cont.)						
Total												
Michigan	2.1	2.1	2.2	2.7	3.2	3.8	3.5	3.9	4.6	4.2	4.2	4.1[a]
United States	2.7	2.7	2.8	3.1	3.5	4.0	3.8	3.9	4.2	4.3	4.3	4.2[a]
						State aid to local governments						
Michigan	3.2	3.4	3.4	3.8	3.8	3.7	3.9	3.9	3.9	4.1	4.0	3.9[a]
United States	3.1	3.3	3.4	3.8	4.0	4.0	4.0	4.3	4.3	4.2	4.1	4.0[a]

SOURCE: Developed from Tax Foundation, Inc., Monthly Tax Features, February 1980, p. 4; Bureau of the Census, State Government Tax Collections in 1979 (Washington, D.C.: 1980), GF-79, no. 1, Table 2; Bureau of the Census, Governmental Finances in 1977-78 (Washington, D.C.: 1980), GF-78, no. 5, Table 5, and similar documents for 1975-76 (Table 17), 1974-75 (Table 17), 1972-73 (Table 17), 1970-71 (Table 17, 1969-70 (Table 17), and 1968-69 (Table 17); and Bureau of the Census, 1977 Census of Governments, vol. 4, Governmental Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), Table 47, and similar documents for 1972 (Tables 3 and 46); and Bureau of Economic Analysis, Regional Economics Information System.

a. Estimated by the Division of Research, Graduate School of Business Administration, Michigan State University.

n.a.: not available.

TABLE X-3. COMPARATIVE FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1955-1977

Year	Number of returns (000)		Thousands of dollars							
			Adjusted gross income		Salaries and wages		Taxable income		Income tax[a]	
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1955	2,727	58,252	13,402	248,779	11,444	200,984	n.a.	128,020	1,688	29,654
1956	2,715	59,181	13,911	267,653	11,617	215,677	7,861	141,446	1,839	32,706
1957	2,699	59,824	14,238	280,229	12,087	228,009	7,967	149,312	1,845	34,382
1958	2,576	59,080	12,922	281,252	10,947	227,618	6,991	149,401	1,607	34,351
1959	2,601	60,260	14,218	305,200	14,218	305,371	7,975	166,574	1,821	38,653
1960	2,624	61,025	14,822	315,832	12,623	258,170	8,300	171,932	1,908	39,545
1961	2,580	61,498	14,630	330,074	12,288	266,989	8,168	181,940	1,892	42,271
1962	2,612	62,709	15,949	348,707	13,526	283,367	9,159	195,307	2,107	44,893
1963	2,682	63,943	17,033	368,728	14,362	299,381	9,976	209,090	2,315	48,204
1964	2,778	65,375	18,922	396,717	15,856	323,292	11,409	229,881	2,361	47,160
1965	2,946	67,599	20,959	429,254	17,480	347,199	13,152	255,070	2,582	49,525
1966	3,051	70,153	23,003	468,347	19,329	380,934	14,779	286,230	2,934	56,071
1967	3,081	71,653	24,061	504,719	20,095	411,537	15,661	314,990	3,154	62,899
1968	3,169	73,731	26,372	554,337	22,092	451,430	17,322	352,672	3,776	76,611
1969	3,255	75,845	28,920	603,602	24,686	498,973	19,326	388,817	4,343	86,569
1970	3,155	74,278	29,267	631,626	25,256	531,869	19,067	401,057	4,005	83,759
1971	3,143	74,573	31,283	673,677	27,132	565,056	19,880	414,028	4,100	85,253
1972	3,270	77,570	35,084	746,006	30,403	622,656	21,912	445,558	4,599	93,354
1973	3,423	80,693	39,221	827,148	34,162	687,179	25,194	511,929	5,350	107,901
1974	3,461	83,340	41,248	905,523	36,163	758,629	26,638	573,606	5,723	123,465
1975	3,355	82,177	41,156	948,094	35,811	795,213	26,418	595,626	5,547	124,624
1976	3,461	84,536	46,834	1,053,593	40,682	879,770	30,829	674,428	6,521	140,919
1977	3,572	86,493	52,949	1,155,699	46,427	965,608	n.a.	n.a.	7,856	159,331

SOURCE: Internal Revenue Service, Statistics of Income, Individual Income Tax Returns (Washington, D.C.: annually), Table 5.I (1977).
NOTE: Items included on income tax returns filed by Michigan and U.S. residents.
a. After credits.
n.a.: not available.

TABLE X-4. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Number of returns	3,460,563	3,572,396	84,536,143	86,493,391	4.1	4.1
Adjusted gross income less deficit	46,834,485	52,949,467	1,053,593,868	1,155,699,081	4.4	4.6
Salaries and wages (gross):						
Number of returns	3,117,454	3,231,391	75,418,316	77,206,389	4.1	4.2
Amount	40,681,725	46,427,165	879,769,742	965,608,459	4.6	4.8
Business or profession nte profit less net loss:						
Number of returns	258,089	259,029	7,518,798	7,715,345	3.4	3.4
Amount	1,513,398	1,735,788	44,411,252	49,354,268	3.4	3.5
Farm net profit less net loss:						
Number of returns	84,110	66,099	2,810,218	2,496,761	3.0	2.6
Amount	36,284	-13,223	3,531,331	804,009	1.0	--
Partnership net profit less net loss:						
Number of returns	87,399	103,286	2,578,250	2.735.037	3.4	3.9
Amount	298,358	412,856	12,085,888	13,655,888	2.5	3.0
Sales of capital assets net gain less net loss:						
Number of returns	322,779	278,970	8,464,268	8,622,095	3.8	3.2
Amount	652,634	417,056	18,250,896	19,661,021	3.6	2.1
Sales of property other than Capital assets net gain less net loss:						
Number of returns	46,329	31,201	1,093,368	977,137	4.2	3.2
Amount	-52,206	28,174	125,841	539,464	--	5.2
Domestic & foreign dividends received:						
Total:						
Number of returns	594,774	565,282	13,572,988	13,370,279	4.4	4.2
Amount	1,057,195	1,040,875	25,899,051	28,591,308	4.1	3.6

TABLE X-4. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977 (cont.)

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Interest received:						
Number of returns	1,819,535	1,927,281	42,584,833	43,961,840	4.3	4.4
Amount	1,771,861	2,002,325	48,441,608	54,409,964	3.7	3.7
Rent net income less net loss:						
Number of returns	238,854	218,654	6,721,577	6,797,526	3.6	3.2
Amount	78,508	82,171	3,895,719	3,297,543	2.0	2.5
Royalty net income less net loss:						
Number of returns	18,733	8,790	635,718	573,415	2.9	1.5
Amount	30,258	14,751	2,010,535	2,227,979	1.5	0.7
Estate or trust net income less loss:						
Number of returns	21,478	16,425	819,316	740,199	2.6	2.2
Amount	39,566	73,089	2,823,283	2,749,205	1.4	2.7
Pensions and annuities in adjusted gross income:						
Number of returns	236,571	262,026	5,540,835	6,224,656	4.3	4.2
Amount	894,959	1,091,561	24,532,396	29,475,542	3.6	3.7
Alimony received:						
Number of returns	26,765	n.a.	635,642	n.a.	4.2	n.a.
Amount	102,175	n.a.	2,006,174	n.a.	5.1	n.a.
Itemized deductions:						
Number of returns	1,299,391	n.a.	25,897,681	n.a.	5.0	n.a.
Amount	6,192,164	n.a.	13,321,803	n.a.	4.6	n.a.

TABLE X-4. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1976 AND 1977 (cont.)

Item	Michigan		United States		Michigan as a percentage of United States	
	1976	1977	1976	1977	1976	1977
Standard deductions:						
Number of returns	2,145,176	n.a.	58,118,746	n.a.	3.7	n.a.
Amount	4,178,743	n.a.	11,369,750	n.a.	3.7	n.a.
Exemptions:						
Number of returns	8,932,039	n.a.	215,266,535	n.a.	4.1	n.a.
Amount	6,699,029	n.a.	161,449,001	n.a.	4.1	n.a.
Taxable income:						
Number of returns	2,826,747	n.a.	68,649,540	n.a.	4.1	n.a.
Amount	30,828,857	n.a.	674,427,715	n.a.	4.6	n.a.
Income tax after credits:						
Number of returns	2,694,615	n.a.	64,408,856	n.a.	4.2	n.a.
Amount	6,520,603	n.a.	140,919,120	n.a.	4.6	n.a.
Total income tax:						
Number of returns	2,696,402	2,734,156	64,430,958	64,349,872	4.2	4.2
Amount	6,554,071	7,856,451	141,886,352	159,330,829	4.6	4.9
Total tax liability:						
Number of returns	2,737,311	2,791,909	65,989,560	66,138,167	4.1	4.2
Amount	6,677,579	8,003,284	145,813,508	163,513,341	4.6	4.9

SOURCE: Internal Revenue Service, Preliminary Statistics of Income, 1976, Individual Income Tax Returns, (Washington, D. C.: 1977); Table 8; and Internal Revenue Service, Preliminary Statistics of Income, 1977, Individual Income Tax Returns (Washington, D.C.: 1979), Table 8.

TABLE X-5. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES

Tax source	Year adopted	Fiscal year 1978 ($000)	Fiscal year 1979 ($000)	Disposition
State taxes				
Individual income tax	1967	1,712,374	1,943,478	12.1 percent of gross collections at 2.6 percent tax rate is distributed to local governments, 47 percent on a per capita basis to counties and 53 percent to other local units. The balance of the income tax revenues go to the State General Fund.
Business privilege taxes				
Single business tax	1975	899,390	1,001,301	State General Fund. Local units are reimbursed for loss of revenue due to the repeal of the inventory property tax replaced by the SBT.
Boxing and wrestling tax	1919	50	90	State General Fund
Foreign insurance company premium tax	1869	99,755	108,778	State General Fund
Horse race wagering tax	1933	26,084	27,512	State General Fund-wich payments to cities hosting tracks, payments to purses, and payments for racing supervision.
Oil and gas severance tax	1929	11,575	14,212	State General Fund
Consumption taxes				
Beer and wine taxes (combined)	1933	52,381	50,435	State General Fund
Cigarette tax	1929	140,739	140,365	4.5 mills (9¢ per pack) to the General Fund and 1 mill (2¢ per pack) to the State School Aid Fund.
Liquor excise tax	1957	16,701	17,565	School Aid Fund
Liquor specific taxes	1959	16,701	17,565	General Fund
Liquor specific taxes	1973	2,790	6,274	Liquor Purchase Revolving Fund (LPRF)
Total liquor taxes		36,192	41,404	
Sales tax	1933	1,376,410	1,506,289	60% School Aid Fund, 15% to cities, villages, and townships; 25% State General Fund.
Use tax	1937	210,482	232,896	State General Fund

TABLE X-5. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1978 ($000)	Fiscal year 1979 ($000)	Disposition
State taxes (cont.)				
Transportation taxes:				
Aircraft reg. & transfer fee	1923	68	65	Aeronautics Fund
Aviation gasoline tax	1929	3,873	4,463	Aeronautics Fund
Diesel fuel tax	1947	24,696	30,418	Current: 44.5 percent motor Vehicle Highway Fund for distribution to the state, 35.7 percent to counties, and 19.8 percent to cities and villages. (Different percentage distribution for 1979).
Gasoline tax	1925	413,188	470,561	Current: 44.5 percent Motor Vehicle Highway Fund for distribution to the state, 35.7 percent to counties, and 19.8 percent to cities and villages. 1/2¢ to General Transportation Fund $3.5 million for repayment of Mackinaw Bridge bonds. (Different % allocations effective 1979).
Liquified petroleum gas tax	1953	275	298	Current: 8.5¢ Motor Vehicle Highway Fund; 1/2¢ to Gen. Trans. Fund. (Different % allocation 1979).
Marine vessel fuel tax	1947	20	7	Waterways Fund
Motor carriers privilege fee	1923	1,914	n.a.	Credited to the Public Service Commission. Balance after administration to Motor Vehicle Highway Fund.
Motor vehicle weight registration tax	1905	173,363	235,344	Current: Motor Vehicle Highway Fund. (Different allocation effective 1979).
Watercraft registration fee	1967	7,484	1,330,995	25% Waterways Fund; 75% Marine Safety Fund.
State property taxes:				
Commercial forest tax	1925	n.a.	n.a.	Specific: distributed to the local units in the same proportions as the general property tax. Withdrawal: State General Fund.

TABLE X-5. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1978 ($000)	Fiscal year 1979 ($000)	Disposition
State taxes (cont.)				
State property taxes:				
Inheritance taxes	1899	45,657	53,785	State General Fund and County General Funds.
Intangibles tax	1939	30,745	38,377	$9.5 million to cities, villages and townships, remainder to the State General Fund.
Stumpage yield tax	1925	143	154	State General Fund
Utility property tax	1905	83,307	89,485	State General Fund
Local taxes				
Accommodations tax	1974	n.a.	n.a.	Dedicated to convention facilities and promotion of conventions and tourism, less costs of administering the tax.
Uniform city income tax	1964	203,425	223,354	City General Fund
Uniform city utility users tax	1970	32,433	n.a.	General Fund of the city to be used exclusively for public safety.
General property tax	1893	3,503,000	3,890,400[a]	To the local units and school districts as determined locally.
Grain tax[b]	1945	n.a.	n.a.	Local taxing units in the same proportion as general personal property taxes.
Industrial facility tax	1974	4,649	9,127	Same as for the general property tax except the share of local and intermediate school districts receiving general state school aid to be paid to the State School Aid Fund.
Iron ore specific tax	1951	5,243	6,327	School districts and local units in the same proportio as the general property tax.
Mobile home-trailer-coach tax[c]	1959	n.a.	n.a.	Counties: 50¢; municipalities: 50¢; school districts: $2.00.

TABLE X-5. SOURCE, YEAR OF ADOPTION, AND DISPOSITION OF MICHIGAN STATE AND LOCAL TAXES (cont.)

Tax source	Year adopted	Fiscal year 1978 ($000)	Fiscal year 1979 ($000)	Disposition
Local taxes (cont.)				
Real estate property transfer tax[d]	1966	n.a.	n.a.	General Fund in county where tax is collected.
Tax reverted recreation and forest land transfer payment (Swamp tax)	1917	2,043	2,115,200[e]	Counties and townships each receive $ .60, and schools, $ .30.

SOURCE: Michigan Department of Management and Budget, special release.

a. Estimate

b. Amounted to $321,000 in 1977.

c. Amounted to $2,995,000 in 1977.

d. Amounted to $6,500,000 in 1977.

e. Actual amount owed in 1979 was $5,287,277. Part was paid in 1980 because of delay in appropriations.

n.a.: not available.

TABLE X-6. ORIGIN AND ALLOCATION, BY LEVEL OF GOVERNMENT, OF GENERAL REVENUE OF MICHIGAN STATE AND LOCAL GOVERNMENTS: FISCAL YEARS 1957-1978

(In millions of dollars)

Year	Originating level of government			Final recipient level of government		Total general revenue
	Federal	State	Local	State	Local	
1956-57	143.0	870.7	795.5	571.3	1,237.9	1,809.2
1957-58	174.1	907.1	911.1	612.5	1,379.8	1,992.3
1958-59	216.3	931.5	945.5	649.4	1,443.9	2,093.3
1959-60	222.7	1,049.0	994.3	736.2	1,529.8	2,266.0
1960-61	278.0	1,112.4	1,117.1	819.3	1,688.2	2,507.1
1961-62	289.5	1,156.6	1,141.1	910.9	1,676.2	2,587.1
1962-63	338.9	1,311.5	1,249.6	990.7	1,909.2	2,899.9
1963-64	404.3	1,408.6	1,312.3	1,144.0	1,981.2	3,125.2
1964-65	426.2	1,545.5	1,398.6	1,255.2	2,115.1	3,370.3
1965-66	471.9	1,724.0	1,528.6	1,347.0	2,377.6	3,724.6
1966-67	593.6	1,835.4	1,623.5	1,435.5	2,617.0	4,052.5
1967-68	637.6	2,226.6	1,800.3	1,868.2	2,796.2	4,664.5
1968-69	711.0	2,640.1	2,053.9	2,160.3	3,244.7	5,405.0
1969-70	818.2	2,769.7	2,330.6	2,264.5	3,654.0	5,918.5
1970-71	1,019.1	3,019.3	2,574.3	2,490.9	4,121.9	6,612.7
1971-72	1,306.9	3,572.1	3,038.9	3,121.8	4,796.2	7,918.0
1972-73	1,769.7	4,121.3	3,109.1	3,822.7	5,177.5	9,000.2
1973-74	1,845.2	4,417.1	3,538.4	3,889.5	5,911.3	9,800.8
1974-75	2,124.4	4,267.9	3,947.0	3,846.9	6,492.4	10,339.3
1975-76	2,667.3	4,607.0[a]	4,319.8	4,327.0	7,267.0	11,594.1
1976-77	2,841.1	5,763.5	4,580.3	5,192.1	7,992.8	13,184.9
1977-78	3,131.3	6,556.6	4,793.9	5,901.9	8,579.9	14,481.8

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington,D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), Series GF-78, no. 5, Table 7.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

a. Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. During the fiscal year ended 30 June 1976, state tax collections totaled $3,769,500,000. If the fiscal year had ended 30 September 1976, they would have totaled around $4,200,000,000.

TABLE X-7. PERCENTAGE OF GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS ORIGINATING AT FEDERAL, STATE, AND LOCAL LEVEL, MICHIGAN AND UNITED STATES: FISCAL YEARS 1957-1978

	Originating level of government						Final recipient level of government			
	Michigan			United States			Michigan		United States	
Year	Federal	State	Local	Federal	State	Local	State	Local	State	Local
1956-57	7.9	48.1	44.0	10.1	43.1	46.8	31.6	68.4	34.2	65.8
1957-58	8.7	45.5	45.7	11.8	41.3	46.9	30.7	69.3	33.6	66.4
1958-59	10.3	44.5	45.2	14.1	40.2	45.8	31.0	69.0	35.1	64.9
1959-60	9.8	46.3	43.9	13.8	40.8	45.4	32.5	67.5	35.8	64.2
1960-61	11.1	44.4	44.6	13.2	40.5	46.3	32.7	67.3	34.3	65.7
1961-62	11.2	44.7	44.1	13.5	40.6	45.8	35.2	64.8	34.8	65.2
1962-63	11.7	45.2	43.1	13.9	40.8	45.4	34.2	65.8	35.1	64.9
1963-64	12.9	45.1	42.0	14.6	41.2	44.2	36.6	63.4	36.2	63.8
1964-65	12.6	45.9	41.5	14.8	41.2	44.0	37.2	62.8	36.1	63.9
1965-66	12.7	46.3	41.0	15.8	41.6	42.6	36.2	63.8	36.6	63.4
1966-67	14.6	45.3	40.1	16.9	41.4	41.7	35.4	64.6	36.9	63.1
1967-68	13.6	47.7	38.5	16.9	42.6	40.3	40.0	59.9	38.3	61.6
1968-69	13.1	48.8	37.9	16.7	43.2	40.0	39.9	60.0	37.9	62.0
1969-70	13.8	46.7	39.3	16.7	43.9	39.3	38.2	61.7	38.8	61.1
1970-71	15.4	45.6	38.9	18.0	42.2	39.6	37.6	62.3	37.2	62.7
1971-72	16.5	45.1	38.4	18.7	42.2	39.1	39.4	60.6	37.9	62.1
1972-73	19.7	45.8	34.5	20.6	42.3	37.1	42.5	57.5	38.5	61.5
1973-74	18.8	45.1	36.1	20.1	42.9	36.9	39.7	60.3	37.4	62.6
1974-75	20.5	41.3	38.2	20.6	42.4	37.0	37.2	62.8	36.6	63.4
1975-76	23.0	39.7	37.3	21.7	41.9	36.4	37.3	62.7	38.1	61.9
1976-77	21.5	43.7	34.7	21.9	42.4	35.7	39.4	60.6	38.3	61.7
1977-78	21.6	45.3	33.1	22.0	42.9	35.0	39.4	60.6	40.8	59.2

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), Series GF-78, no. 5, Table 7.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

TABLE X-8. REVENUE OF LOCAL GOVERNMENTS IN MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1962, 1967, 1972, 1977, AND 1978

(In millions of dollars)

Item	1962	1967	1972	1977	1978
General revenue	1,699.5	2,648.9	4,853.8	7,886.6	8,652.0
Federal government	19.3	57.1	248.7	799.3	933.7
State government	539.2	968.3	1,566.2	2,655.9	2,924.4
Own sources	1,141.1	1,623.5	3,395.9	4,431.4	4,793.9
Taxes	888.7	1,184.4	2,184.7	3,137.9	3,365.9
Property	877.9	1,109.4	2,005.4	2,874.8	3,075.4
Individual income	0	60.6	135.1	187.6	n.a.
Other	10.8	14.5	44.1	75.3	n.a.
Charges & miscellaneous	252.4	439.1	854.2	1,293.5	1,428.0
Current charges	174.7	300.9	586.8	950.8	n.a.
Education	44.2	91.9	135.1	203.5	n.a.
School lunch[a]	25.1	41.7	63.4	70.7	n.a.
Other	19.1	50.2	71.7	132.9	n.a.
Hospitals	60.2	101.4	207.0	347.4	n.a.
Sewerage	21.0	34.0	85.3	151.4	n.a.
Airports	4.3	9.6	17.6	39.5	n.a.
Other	45.0	64.1	141.8	209.0	n.a.
Special assessments	22.0	30.9	63.9	38.7	n.a.
Sale of property	4.8	15.0	10.3	5.5	n.a.
Interest earnings	17.7	50.9	102.8	143.1	n.a.
Other	33.2	41.3	90.3	155.4	n.a.
Utility revenue	138.4	184.0	251.7	411.4	462.8
Water supply	75.2	105.4	152.8	239.0	264.6
Electric power	34.1	45.7	59.6	137.2	n.a.
Transit	29.0	32.9	39.3	35.1	198.1[b]
Insurance trust revenue, Employee retirement	35.9	54.5	105.2	163.0	186.1
TOTAL	1,873.8	2,887.3	5,210.8	8,461.0	9,300.9

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), Table 47, and similar census documents for 1962 (Table 46), 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), Series GF-77, no. 5, Tables 6, 21, and 24.

a. Gross sales.

b. Electric and transit.

n.a.: not available.

TABLE X-9. REVENUE OF THE STATE OF MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1962, 1967, 1972, 1977, AND 1978

(In millions of dollars)

Item	1962	1967	1972	1977	1978
General Revenue	1,450.1	2,403.8	4,688.0	7,891.6	8,826.3
Federal government[a]	270.2	536.5	1,058.2	2,042.2	2,197.6
Local government	23.3	31.9	57.6	85.8	72.1
Own sources	1,156.6	1,835.4	3,572.1	5,763.5	6,556.6
Taxes	1,007.5	1,530.8	3,062.4	4,843.7	5,444.9
Property	57.3	81.0	93.3	117.7	123.4
General sales and use	460.5	680.4	987.7	1,407.0	1,586.9
Selective sales	248.3	379.2	582.0	757.9	794.5
Motor fuel	152.6	190.8	300.8	430.4	442.1
Alcoholic beverages	14.0	58.4	72.0	80.0	85.8
Tobacco products	51.4	77.9	128.7	140.3	140.7
Other	30.3	52.0	81.0	107.2	125.9
Motor vehicle licenses	72.6	101.9	160.6	180.3	190.4
Individual income	0	0	728.9	1,465.5	1,712.4
Other	168.8	288.4	509.4	915.3	1,037.5
Charges & miscellaneous	149.1	304.6	509.8	919.8	1,111.7
Current charges	116.4	225.3	399.7	592.8	677.9
Education[b]	83.4	172.6	296.6	422.3	470.1
Hospitals	19.6	28.5	64.8	109.6	138.0
Other	13.4	24.2	38.3	60.9	69.7
Sale of property	1.5	1.4	2.3	1.2	1.8
Interest earnings	8.6	25.8	50.1	95.5	131.4
Other	22.5	52.2	57.7	230.3	300.6
Liquor Store Revenue	169.7	232.3	306.5	338.3	366.6
Insurance Trust Revenue	209.0	288.1	477.4	1,459.4	1,312.4
Unemployment compensation	160.8	181.9	247.8	967.1	785.6
Employee retirement	42.5	93.1	213.2	439.1	471.8
Other	5.7	13.1	16.4	53.2	55.0
TOTAL	1,828.7	2,924.2	5,471.9	9,689.2	10,505.2

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 46, and similar census documents for 1962 (Table 46), and 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, State Government Finances, 1978 (Washington, D.C.: 1979), Series GF-77, no. 3, Table 7.

a. Includes federal payments to state institutions of higher education.

b. Revenues of state institutions of higher education, exclusive of payments from state and federal government.

TABLE X-10. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1978 AND 1979

(In thousands of dollars)

Source	1978	1979
Taxes		
Sales tax	1,376,414	1,506,294
Personal income tax	1,712,373	1,943,478
Corporation income tax	9,289	13,915
Use tax	210,482	232,895
Cigarette tax	140,739	140,364
Beer and wine tax	52,381	50,434
Single business tax	899,390	1,001,300
Liquor excise tax	36,192	35,130
Horse race wagering tax	26,083	27,512
Intangibles tax	30,745	38,377
Inheritance tax	45,657	53,785
Telephone and telegraph company tax	81,966	87,413
Insurance company premium tax	99,755	108,778
Motor vehicle weight tax	173,363	235,343
Gasoline tax	413,195	472,287
Aviation fuel tax	3,873	4,462
Diesel fuel tax	24,696	30,417
Gas and oil severance tax	11,575	14,211
Industrial facilities tax	--	9,126
Watercraft registration tax	7,484	--
Delinquent railroad company tax (General Transportation Fund)	9,955	12,704
Penalties and interest-sales, income use, and single business tax	16,617	21,854
All other taxes	7,381	2,304
TOTAL	5,389,620	6,044,023
From federal agencies for:		
Social service programs	1,143,879	1,190,670
School lunch programs	70,398	79,499
Vocational education and rehabilitation	61,955	65,701
Elementary and secondary education	155,359	128,126
Various other educational purposes	20,643	32,529
Various public health programs	44,988	55,156
Mental health programs	28,604	24,906
State share of revenue sharing	93,766	96,457
Various conservation programs	13,517	21,805
Airways purposes	13,920	13,590
Highway purposes	145,665	156,165
Employment security commission-administration	93,641	94,011
Title II Counter-Cyclical Aid Payments	22,853	--

TABLE X-10. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1978 AND 1979 (cont.)

(In thousands of dollars)

Source	1978	1979
From federal agencies for:		
Omnibus crime control	24,097	17,889
Comprehensive employment and training	88,415	77,214
Older Americans Act	21,368	23,451
Welfare relief	10,544	--
Federal-local public works	17,056	--
All other purposes	36,139	52,550
TOTAL	2,066,814	2,129,729
From local agencies for:		
Social services department programs	11,803	18,380
Mental health services	17,594	9,541
Highway construction	2,856[a]	4,809
Special education	1,022	1,076
All other purposes	2,849	4,174
TOTAL	36,125	37,982
From services:		
Charges for furnishing vehicle driver records	9,250	9,935
Revenue from patients, wards, and inmates	24,058	31,021
All other services	4,684	5,375
TOTAL	37,994	46,332
From licenses and permits:		
Liquor retailer, manufacturer, and wholesaler licenses	10,858	9,205
Motor vehicle operator and chauffeur licenses	13,210	11,792
Corporation franchise fees	4,010	4,332
Examination fees, banks, building and loan companies, trust companies, credit unions, and insurance companies	2,881	2,838
Department of Licensing and Regulation licenses and permits	6,969	7,412
Concession and privilege fees-state parks	5,526	5,347
Motor vehicle title fees, license plate transfer and dealer's plates, various special fees and registrations	11,294	11,032
Hunting, fishing, and trapping licenses	18,192	18,935
Public utility assessment fees	--	4,822
Other licenses and permits	25,049	22,155
TOTAL	97,993	97,875

TABLE X-10. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1978 AND 1979 (cont.)

(In thousands of dollars)

Source	1978	1979
Miscellaneous:		
Income from investments	50,207	96,363
Various fines, fees, and assessments	0,793	10,384
District court fees	5,035	5,589
Oil and gas royalties, fees, assignments, and rentals	18,683	26,979
Farm production and sales	2,871	3,542
Lottery ticket sales	326,463	410,974
Air and water surveillance fees	3,664	3,837
Reimbursement of advances made by government fund	--	10,843
Other miscellaneous	28,123	33,461
TOTAL	445,842	601,977
From funds other than general and special revenue:		
Liquor purchase revolving fund	68,644	113,000
Escheats fund	6,500	5,000
Safe park improvement fund	--	5,118
Correctional industries revolving fund	--	2,193
Vietnam veteran era bonus fund	--	12,000
Other funds	6,142	7,874
TOTAL	81,286	145,186
TOTAL REVENUE	9,557,952	11,090,117

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1978 and 1979 (Lansing: annually), pp. 97-98 (1979).

a. Includes airport construction.

n.a.: not available.

TABLE X-11. INTERGOVERNMENTAL REVENUE IN MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, BY TYPE OF PROGRAM, FISCAL YEARS: 1962, 1967, 1972, 1977, AND 1978

(In millions of dollars)

Item	1962	1967	1972	1977	1978
General revenue from federal government to state of Michigan[a]					
Public welfare	76.5	141.9	485.4	996.6	1,118.7
Education	54.2	180.2	229.9	388.0	388.6
Highways	107.3	158.7	206.0	206.0	177.5
General revenue sharing	0	0	0	91.3	93.8
Employment security admin.	18.2	25.5	57.5	96.1	105.6
Health and hospitals	6.2	14.6	27.5	54.4	63.5
Natural resources	4.3	6.2	11.4	17.4	20.3
Other	3.4	9.3	40.5	192.4	229.6
TOTAL	270.2	536.5	1,058.2	2,042.2	2,197.6
Total revenue from state of Michigan to local governments					
Education	325.1	620.0	941.0	1,588.9	1,762.1
Highways	128.1	162.0	232.0	347.8	355.3
General support	76.3	88.0	186.0	463.1	519.6
Public welfare	60.1	66.0	80.0	221.8	203.4
Other	20.1	32.0	127.0	226.7	231.0
TOTAL	609.7	968.0	1,566.0	2,848.3	3,071.4
General revenue from federal government to local governments					
General revenue sharing	0	0	0	181.0	186.9
Other	19.3	57.1	248.7	618.3	746.8
TOTAL	19.3	57.1	248.7	799.3	933.7
General revenue from local governments to state of Michigan					
Highways	13.6	15.8	26.4	16.8	16.1
Public welfare	.5	0	10.6	0	0
Health and hospitals	6.2	11.2	11.9	18.4	28.1
Other	3.1	4.9	8.6	50.6	27.8
TOTAL	23.3	31.9	57.6	85.8	72.1

SOURCE: Bureau of the Census, State Government Finances, 1962, 1967, 1972, and 1978 (Washington, D.C.: annually), GF-77, no. 3 (1978), Tables 7 and 11; Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), and similar census documents for 1972 (vol. 4, no. 5, Table 46), 1967 (vol. 4, no. 5, Table 29), and 1962 (vol. 4, no. 4, Table 46); and Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), GF-77, no. 5, Tables 6 and 7.

a. Includes payments to institutions of higher education.

TABLE X-12. TAXES AND INTERGOVERNMENTAL REVENUE AS DEFINED BY THE BUREAU OF THE CENSUS, MICHIGAN COUNTIES, MUNICIPALITIES, AND TOWNSHIPS, FISCAL YEARS: 1977 AND 1978

(Thousands of dollars)

	1977				1978			
	Counties	Municipalities	Townships	Total	Counties	Municipalities	Townships	Total
Taxes								
Property	341,497	594,396	83,044	1,018,937	344,413	616,925	92,195	1,053,533
Sales & gross receipts								
General	--	--	--	--	--	--	--	--
Selective	306	31,325	--	31,631	336	32,970	--	33,306
Individual income	--	187,614	--	187,614	--	203,051	--	203,051
All other	13,406	19,007	5,796	38,209	16,805	20,786	7,935	45,527
TOTAL	355,209	832,342	88,841	1,276,391	361,554	873,732	100,130	1,335,417
Intergovernmental revenue								
State								
Education	--	--	--	--	--	17	--	17
Public welfare	181,641	2	1	181,643	158,098	--	6	158,104
General support	53,474	272,459	67,333	393,266	71,480	327,525	80,844	479,849
Highway	221,534	110,128	246	331,908	242,978	111,797	515	355,290
TOTAL[a]	576,830	455,733	72,445	1,105,009	633,822	590,451	85,787	1,310,060
Federal government								
General revenue sharing	55,056	108,656	17,357	181,069	56,247	112,788	17,896	186,932
Housing and urban renewal	262	55,095	2,390	57,746	928	71,336	2,026	74,290
TOTAL[a]	190,804	456,064	22,886	669,775	225,890	530,135	38,111	794,136

SOURCE: Bureau of the Census, Taxes and Intergovernmental Revenue of Counties, Municipalities and Townships: 1976-77, Series GF-76, no. 9 (Washington, D.C.: May 1978), Table 3, and Taxes and Intergovernmental Revenue of Counties, Municipalities and Townships: 1977-78, Series GF-76, no. 9 (Washington, D.C.: May 1979), Table 3.

a. Includes amounts for categories not shown separately.

TABLE X-13. FEDERAL, STATE, AND LOCAL GOVERNMENT DIRECT GENERAL EXPENDITURES IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1960-1978

	Federal		State		Local		Total	
Fiscal year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1960	n.a.	n.a.	790	17,946	1,582	33,931	n.a.	n.a.
1961	n.a.	n.a.	903	19,004	1,721	37,197	n.a.	n.a.
1962	n.a.	n.a.	955	20,375	1,823	39,831	n.a.	n.a.
1963	n.a.	n.a.	972	22,491	1,974	42,324	n.a.	n.a.
1964	n.a.	n.a.	1,018	24,274	2,113	45,027	n.a.	n.a.
1965	n.a.	n.a.	1,054	26,141	2,229	48,813	n.a.	n.a.
1966	n.a.	n.a.	1,242	29,162	2,503	53,680	n.a.	n.a.
1967	n.a.	n.a.	1,553	34,249	2,771	59,101	n.a.	n.a.
1968	n.a.	n.a.	1,742	38,446	2,960	63,966	n.a.	n.a.
1969	n.a.	n.a.	1,929	43,244	3,459	73,483	n.a.	n.a.
1970	4,053	168,152	2,146	48,749	3,864	82,582	10,063	299,483
1971	4,531	182,702	2,481	56,478	4,329	94,196	11,341	333,376
1972	4,813	195,672	2,913	62,051	4,951	106,499	12,677	364,222
1973	5,452	221,354	3,280	67,264	5,302	113,822	14,034	402,440
1974	6,249	239,636	3,630	73,950	5,746	124,668	15,625	438,254
1975	7,538	279,672	4,269	86,326	6,636	143,148	18,443	509,146
1976	7,787	303,281	4,513	95,832	7,391	159,720	19,691	558,833
1977	9,466	333,212	4,801	101,891	7,723	170,938	21,990	606,041
1978	9,745	363,269	5,291	112,515	8,400	182,995	23,436	658,779

SOURCE: Bureau of the Census, 1977 Census of Governments, Compendium of Government Finances (Washington, D.C.: 1979), vol. 4, no. 5, Tables 3 and 47, and similar documents for 1957 (Table 24), 1962 (Table 25), 1967 (Table 23), and 1972 (Table 23); Bureau of the Census, Governmental Finances, 1977-78 (Washington, D.C.: 1979), Table 6, and similar documents for other years between quinquennial Censuses of Governments; and Executive Office of the President, Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1979 (Washington, D.C.: 1980), National and State Summaries section, p. 2, and similar documents for previous years.

n.a.: not available.

TABLE X-14. FEDERAL, STATE, AND LOCAL GOVERNMENT DIRECT GENERAL EXPENDITURES AS A PERCENTAGE OF PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1960-1978

	Federal[a]		State		Local		Total	
Year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1960	n.a.	n.a.	4.4	4.6	8.8	8.7	n.a.	n.a.
1961	n.a.	n.a.	5.0	4.7	9.6	9.3	n.a.	n.a.
1962	n.a.	n.a.	5.1	4.8	9.7	9.4	n.a.	n.a.
1963	n.a.	n.a.	4.8	5.0	9.8	9.5	n.a.	n.a.
1964	n.a.	n.a.	4.7	5.1	9.7	9.5	n.a.	n.a.
1965	n.a.	n.a.	4.4	5.1	9.3	9.6	n.a.	n.a.
1966	n.a.	n.a.	4.7	5.2	9.4	9.7	n.a.	n.a.
1967	n.a.	n.a.	5.5	5.7	9.7	9.8	n.a.	n.a.
1968	n.a.	n.a.	5.7	6.0	9.7	9.9	n.a.	n.a.
1969	n.a.	n.a.	5.7	6.1	10.1	10.3	n.a.	n.a.
1970	11.4	21.9	6.0	6.3	10.9	10.8	28.3	39.0
1971	12.1	22.2	6.6	6.9	11.6	11.5	30.4	40.6
1972	11.7	22.0	7.1	7.0	12.0	12.0	30.8	41.0
1973	11.8	22.4	7.1	6.8	11.5	11.5	30.5	40.7
1974	12.5	21.9	7.3	6.8	11.5	11.4	31.3	40.0
1975	14.2	23.4	8.0	7.2	12.5	12.0	34.7	42.6
1976	13.4	23.1	7.7	7.3	12.7	12.2	33.8	42.6
1977	14.0	22.5	7.1	6.9	11.4	11.5	32.5	40.9
1978	12.9	21.9	7.0	6.8	11.1	11.0	31.0	39.7

SOURCE: Developed from Executive Office of the President, Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1978 (Washington, D.C.: 1979), National and State Summaries Section, p. 2, and similar documents for previous years; Bureau of the Census, Governmental Finances in 1977-78 (Washington, D.C.: 1980), GF-78, no. 5, Table 5, and similar documents for 1975-76 (Table 17), 1974-75 (Table 17), 1972-73 (Table 17), 1970-71 (Table 17), 1969-70 (Table 17), and 1968-69 (Table 17); and Bureau of the Census, 1977 Census of Governments, vol. 4, Governmental Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), Table 47, and similar documents for 1972 (Tables 3 and 46); and Bureau of Economic Analysis, Regional Economics Information System.

a. Developed by subtracting federal aid received by state and local governments from federal outlays.

n.a.: not available.

TABLE X-15. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1979

(Thousands of dollars)

Function	Michigan	United States	Michigan as a percentage of United States
Department of defense-military	$ 2,102,899	$ 108,791,944	1.9
Atomic energy defense activities	0	65,263	0
Defense related activities	0	3,567	0
Foreign economic and financial assistance	6,647	567,756	1.2
Conduct of foreign affairs	530	411,015	.1
Foreign information & exchange activities	3	105,450	(a)
General science and basic research	24,865	957,105	2.6
Space flight	1,774	2,487,333	.1
Space science applications & technology	10,904	1,330,971	.8
Supporting space activities	133	382,054	(a)
Energy	0	2,427	0
Energy supply	29,353	9,795,730	.3
Energy conservation	4,689	368,380	1.3
Emergency energy preparedness	0	1,600,655	0
Energy information, policy & regulation	289	348,053	.1
Water resources	30,586	5,371,291	.6
Conservation/land management	36,047	3,020,037	1.2
Recreational resources	30,539	1,717,555	1.8
Pollution control/abatement	192,402	5,361,899	3.6
Other natural resources	11,539	1,494,284	.8
Farm income stabilization	136,746	9,148,434	1.5
Agricultural research/services	18,208	1,412,271	1.3
Mortgage credit & thrift insurance	577	141,526	.4
Postal service	533,193	14,851,891	3.6
Other advancement and regulation of commerce	20,960	2,141,142	1.0
Ground transportation	264,168	12,258,312	2.2
Air transportation	50,083	3,373,536	1.5
Water transportation	23,718	2,195,649	1.1
Other transportation	1,418	154,374	.9
Community development	171,527	4,530,088	3.8
Area and regional development	41,853	2,660,859	1.6
Disaster relief and insurance	28,307	1,402,648	2.0
Education, training, employment, social services	80,537	2,374,204	3.4
Elementary, secondary, & vocational education	228,831	5,703,'77	4.0
Higher education	123,158	3,850,'67	3.2

TABLE X-15. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1979 (cont.)

(Thousands of dollars)

Function	Michigan	United States	Michigan as a percentage of United States
Research/general education aids	$ 23,077	$ 1,059,958	2.2
Training & employment	554,633	12,473,085	4.4
Other labor services	5,168	456,600	1.1
Social services	148,229	3,811,286	3.9
Health	120,996	5,505,394	2.2
Health care services	1,948,872	46,174,105	4.2
Health research	168	214,106	.1
Consumer & occupational health and safety	15,099	840,849	1.8
Income security	17,210	702,627	2.4
General retirement and disability insurance	4,397,492	109,530,085	4.0
Federal employment retirement & disability	177,291	12,879,749	1.4
Unemployment compensation	18,411	1,305,267	1.4
Public assistance & other income supplements	987,583	25,359,423	3.9
Income security for veterans	361,575	11,606,561	3.1
Veterans education, training, & rehabilitation	83,202	2,785,666	3.0
Hospital & medical care for veterans	145,586	6,105,891	2.4
Veterans housing	71	47,779	.1
Other veterans benefits/service	10,360	651,999	1.6
Federal law enforcement activities	25,178	1,314,363	1.9
Federal litigative & judicial activities	4,514	327,739	1.4
Federal correctional activities	6,363	287,141	2.2
Criminal justice assistance	20,543	640,844	3.2
Executive direction/management	0	62,425	0
Central fiscal operations	83,949	3,125,863	2.7
General property/records mangement	665,478	3,271,476	20.3
Central personnel management	604	121,590	.5
Other general government	1,624	660,557	.2
General revenue sharing	286,942	6,854,366	4.2
Other general purpose fiscal assistance	2,122	829,628	.3
Other interest	8,972	358,784	2.5
TOTAL	14,327,799	469,746,255	3.1

TABLE X-15. FEDERAL GOVERNMENT DISBURSEMENTS IN MICHIGAN AND THE UNITED STATES, BY FUNCTION, FISCAL YEAR: 1979 (cont.)

(Thousands of dollars)

Function	Michigan	United States	Michigan as a percentage of United States
Indirect Federal Support[b]			
Foreign economic and financial assistance	$ 25,028	$ 2,657,076	.9
Conduct of foreign affairs	1,170	465,003	.3
Foreign information and exchange activities	714	218,537	.3
Energy supply	23,527	6,680,201	.4
Farm income stabilization	172,911	7,756,727	2.2
Mortgage credit & thrift insurance	612,089	25,171,154	2.4
Other advancement & regulation of commerce	75,694	2,701,240	2.8
Water transportation	0	1,204,777	0
Area & regional development	63,700	2,453,801	2.6
Disaster relief & insurance	0	4,828	0
Higher education	17,317	609,161	2.8
Research & general education aids	465	41,128	1.1
Health	0	299	0
Public assistance & other income supplements	54,532	864,378	6.3
Veterans housing	177,149	16,509,357	1.1
General property & records management	220	54,233	.4
Interest on public debt	1,069,534	27,623,884	3.9

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1979 (Washington D.C.: 1980), summary by functions.

a. Less than .05 percent.

b. These figures represent funds that do not directly affect geographic areas and are not included in any totals.

TABLE X-16. OUTLAYS BY THE DEPARTMENT OF DEFENSE IN MICHIGAN COUNTIES HAVING A TOTAL OUTLAY OF $17,000,000 OR MORE, MICHIGAN AND THE UNITED STATES, BY TYPE OF OUTLAY, FISCAL YEARS: 1978 AND 1979

Area	Year	Procurement contracts				
		Military				
		Goods ($000)	Services ($000)	RDTE[a] ($000)	Small[b] ($000)	Civil ($000)
Macomb	1978	362,872	63,240	405,605	38,134	337
	1979	732,242	74,118	70,905	45,983	262
Wayne	1978	98,509	12,059	2,888	4,089	3,087
	1979	94,354	11,775	2,025	1,656	3,846
Muskegon	1978	78,217	3,121	249	0	1,874
	1979	124,199	3,191	2,803	0	985
Oakland	1978	46,092	3,402	42,475	0	1,396
	1979	49,876	3,557	43,006	0	1,124
Marquette	1978	195	6,336	12	9,034	98
	1979	253	6,520	0	10,289	0
Kent	1978	72,360	3,197	3,475	0	235
	1979	53,381	2,953	1,737	0	50
Iosco	1978	1,237	3,371	0	6,614	0
	1979	1,406	4,441	0	8,174	0
Calhoun	1978	9,213	4,291	59	843	175
	1979	12,252	3,602	28	904	42
Washtenaw	1978	7,856	9,397	9,050	0	160
	1979	15,580	5,048	10,455	0	182
Jackson	1978	7,865	27	615	0	236
	1979	22,120	198	1,755	0	215
Kalamazoo	1978	14,248	393	3,970	0	53
	1979	13,726	200	4,200	0	48
Ingham	1978	4,072	228	415	3,075	338
	1979	1,096	360	467	3,417	0
Bay	1978	19,011	0	11	0	69
	1979	17,600	0	0	0	0
Monroe	1978	76	0	0	0	4,335
	1979	212	0	0	0	17,581
Wexford	1978	9,816	3,504	0	0	32
	1979	10,638	6,037	0	0	0
Saginaw	1978	1,878	11	0	0	10,292
	1979	2,475	264	0	0	283
Michigan	1978	785,171	114,639	472,288	61,789	34,811
	1979	1,214,102	134,789	138,856	70,423	39,354
United States	1978	34,590,668	9,781,912	8,638,736	5,432,180	1,691,650
	1979	36,150,124	10,766,501	8,521,584	5,934,487	1,470,257

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1978 (Washington, D.C.: 1979), FIXS 77-23, county summaries section, Michigan summary section, and U.S. summary section; and Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1979 (Washington, D.C.: 1980), county summaries section, Michigan summary section, and U.S. summary section.

TABLE X-16. OUTLAYS BY THE DEPARTMENT OF DEFENSE IN MICHIGAN COUNTIES HAVING A TOTAL OUTLAY OF $17,000,000 OR MORE, MICHIGAN AND THE UNITED STATES, BY TYPE OF OUTLAY, FISCAL YEARS: 1978 AND 1979 (cont.)

Pay					
Military					
Active duty ($000)	Reserve[c] ($000)	Retired ($000)	Civilian ($000)	Other[d] ($000)	Total ($000)
8,868	3,550	5,523	109,785	8,528	1,006,442
9,349	8,141	5,525	117,072	737	1,064,334
6,856	10,147	26,117	31,962	0	195,714
7,507	12,062	28,547	32,041	2,100	195,913
200	649	1,127	535	3	87,975
163	761	1,221	581	34	133,938
541	2,737	5,005	855	47	102,550
534	3,506	5,230	1,629	0	108,464
46,099	852	2,650	7,541	241	73,058
45,571	1,502	2,801	8,035	1,695	76,666
569	2,989	6,629	2,865	10	92,329
558	3,555	7,268	2,586	150	72,238
34,326	0	2,981	6,515	2,227	57,271
33,952	25	2,960	6,996	909	58,863
658	2,809	1,678	34,301	2	54,637
521	1,863	1,684	34,679	0	55,575
1,675	1,861	2,211	646	0	32,256
989	2,563	2,263	602	0	37,686
74	644	2,416	911	260	12,548
77	817	2,627	458	0	28,267
216	624	6,031	481	1	26,017
239	1,132	6,628	569	0	26,742
2,090	2,264	4,585	4,103	1,183	22,353
2,129	4,587	5,072	4,151	1,291	22,570
119	487	974	523	3	21,197
114	541	988	486	0	19,729
42	182	602	30	0	5,267
45	78	620	51	0	18,587
165	335	341	51	2	14,186
229	426	425	73	0	17,828
213	916	3,634	238	2	17,284
260	1,506	4,055	290	32	9,165
107,992	40,184	105,298	213,107	16,091	1,951,370
107,107	55,666	112,661	222,615	7,161	2,102,734
15,544,432	1,742,849	9,175,627	15,721,348	1,357,637	103,677,039
16,105,842	2,243,645	9,855,075	16,134,536	1,575,961	108,758,012

a. Research, development, test, and evaluation work.
b. Contracts of less than $10,000.
c. Includes National Guard.
d. Military prime construction contracts and civil defense grants.

TABLE X-17. NET VALUE OF MILITARY PRIME CONTRACT AWARDS OVER $ 0,000 IN MICHIGAN, BY PROCUREMENT PROGRAM, FISCAL YEARS: 1976-1978

Procurement program	1976 Value ($000)	1976 Percentage of U.S. Total	1977 Value ($000)	1977 Percentage of U.S. Total	1978 Value ($000)	1978 Percentage of U.S. Total
Airframes & related assemblies & spares	6,391	.1	9,462	.1	13,620	.2
Aircraft engines & related spares	16,265	.8	15,949	.7	50,231	1.6
Other aircraft equipment & supplies	28,619	2.6	46,034	3.0	60,572	2.3
Missile & space systems	22,790	.4	65,458	1.0	55,162	.7
Ships	2,220	.1	4,906	.1	15,774	.3
Combat vehicles	583,698	49.8	688,207	55.5	874,620	56.9
Noncombat vehicles	118,194	24.3	158,310	24.0	64,563	10.3
Weapons	8,196	1.4	7,742	1.0	9,677	1.0
Ammunition	662	.1	914	.1	804	(a)
Electronics & communication equipment	38,279	.8	72,352	1.0	45,388	.6
Petroleum	21,823	1.2	24,283	1.2	29,857	1.2
Other fuels & lubricants	12	(a)	0	0	14	(a)
Separately procured containers & handling equipment	0	0	0	0	0	0
Textiles, clothing, & equipage	873	.2	3,515	.6	1,475	.2
Military building supplies	499	.8	174	.2	730	.9
Subsistence	15,319	1.5	21,087	1.8	18,621	1.6
Transportation equipment	0	0	1,245	28.6	34	3.3
Production equipment	1,196	1.1	2,385	2.1	10,133	6.7
Construction	17,264	.8	19,702	.8	21,700	.9
Construction equipment	8,663	11.7	11,069	9.2	15,395	14.0
Medical & dental supplies & equipment	4,093	2.6	7,164	3.6	6,643	2.9
Photographic equipment & supplies	242	.3	17	(a)	0	0
Materials handling equipment	4,837	11.8	6,864	8.0	8,014	6.0
All other supplies & equipment	26,118	2.4	27,667	2.0	33,440	2.1
Services	38,907	1.0	49,952	1.3	45,713	.9
TOTAL	965,160	2.5	1,244,458	2.7	1,382,180	2.6

SOURCE: Department of Defense, Military Prime Contract Awards by Region and State, Fiscal Years 1976, 1977, and 1978 (Washington, D.C.: 1979), Table VII.

a. Less than .05 percent.

TABLE X-18. FEDERAL OUTLAYS IN MICHIGAN, BY COUNTY, FISCAL YEARS: 1978 AND 1979

(In thousands of dollars)

County	Department of defense[a]		Total[b]	
	1978	1979	1978	1979
Alcona	900	1,427	15,315	17,890
Alger	158	174	12,616	15,752
Allegan	889	3,458	74,350	86,657
Alpena	968	2,152	42,063	48,170
Antrim	1,397	1,139	18,819	21,847
Arenac	1,309	575	20,364	18,956
Baraga	57	61	13,592	14,168
Barry	1,275	2,236	54,807	42,848
Bay	21,197	19,729	179,015	146,331
Benzie	1,320	1,553	23,325	17,130
Berrien	11,810	6,456	216,355	223,933
Branch	973	2,090	40,613	47,256
Calhoun	54,637	55,575	282,496	277,116
Cass	1,306	1,672	51,664	49,257
Charlevoix	5,148	4,296	25,509	27,718
Cheboygan	1,742	1,927	25,458	28,951
Chippewa	8,398	8,528	59,282	57,745
Clare	215	233	28,883	32,031
Clinton	3,033	4,776	143,870	88,831
Crawford	2,506	3,730	15,132	17,312
Delta	7,042	6,947	51,310	60,540
Dickinson	3,810	3,941	46,563	52,412
Eaton	5,032	3,140	67,311	55,710
Emmet	900	1,177	28,805	28,546
Genesee	13,332	14,856	506,244	485,193
Gladwin	171	209	20,679	23,189
Gogebic	473	810	35,025	36,495
Grand Traverse	5,303	4,478	64,883	67,430
Gratiot	774	729	45,990	47,401
Hillsdale	705	864	43,527	48,790
Houghton	3,497	3,196	55,111	61,898
Huron	2,409	3,533	55,085	52,902
Ingham	22,353	22,570	854,194	968,074
Ionia	569	590	53,254	51,085
Iosco	57,271	58,863	90,071	92,610

TABLE X-18. FEDERAL OUTLAYS IN MICHIGAN BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(In thousands of dollars)

County	Department of defense[a]		?otal[b]	
	1978	1979	1978	1979
Iron	338	354	22,606	25,889
Isabella	482	541	46,489	46,941
Jackson	12,548	28,267	191,428	201,905
Kalamazoo	26,017	26,742	251,227	266,021
Kalkaska	74	74	9,519	10,781
Kent	92,326	72,238	543,931	555,568
Keweenaw	45	38	4,854	5,216
Lake	82	93	13,582	15,635
Lapeer	947	966	46,766	57,129
Leelanau	1,310	1,076	12,810	14,295
Lenawee	2,820	3,020	87,938	105,843
Livingston	1,698	860	55,200	54,925
Luce	81	91	9,042	9,453
Mackinac	210	205	17,154	15,428
Macomb	1,006,442	1,064,334	1,533,779	2,210,281
Manistee	710	916	27,834	30,806
Marquette	73,058	76,666	150,117	155,808
Mason	481	4,976	30,804	38,562
Mecosta	752	796	36,716	44,193
Menominee	472	601	28,070	32,567
Midland	2,423	1,715	54,860	59,959
Missaukee	139	190	11,700	12,098
Monroe	5,267	18,587	101,044	124,394
Montcalm	5,431	5,476	65,217	59,913
Montmorency	127	154	11,233	12,845
Muskegon	85,975	133,938	284,139	323,904
Newaygo	482	878	33,799	40,834
Oakland	102,550	108,464	897,771	979,890
Oceana	446	1,767	31,395	33,623
Ogemaw	467	5,386	19,138	28,501
Ontonagon	119	122	13,453	16,039
Osceola	163	1,057	23,113	25,467
Oscoda	41	47	8,078	9,695
Otsego	306	273	14,914	17,760
Ottawa	7,703	13,750	132,712	144,462

TABLE X-18. FEDERAL OUTLAYS IN MICHIGAN, BY COUNTY, FISCAL YEARS: 1978 AND 1979 (cont.)

(In thousands of dollars)

County	Department of defense[a]		Total[b]	
	1978	1979	1978	1979
Presque Isle	376	125	16,518	19,998
Roscommon	242	248	29,408	27,765
Saginaw	17,184	9,165	309,646	321,000
St. Clair	7,473	5,922	145,261	157,760
St. Joseph	1,600	2,142	59,833	65,411
Sanilac	3,309	6,882	55,804	60,719
Schoolcraft	261	472	12,769	16,142
Shiawassee	818	1,013	62,228	63,270
Tuscola	1,085	752	52,842	56,957
Van Buren	2,032	2,236	74,185	92,686
Washtenaw	32,256	37,686	372,839	411,147
Wayne	195,714	195,913	3,456,990	3,785,255
Wexford	14,186	17,828	42,487	50,885
TOTAL	1,951,370	2,102,734	12,875,621	14,327,799

SOURCE: Community Services Administration, Geographic Distribution of Federal Funds in Michigan in 1979 (Washington, D.C.: 1980), county summaries section.

a. Dollar outlays by the executive branch only, excludes the judiciary and legislative. Totals include civilian and military pay, contracts, grants, and transfer payments such as Social Security and veterans benefits to individuals and revenue sharing to state and local governments. Most government contracts are reported as obligations or funds legally set aside to be spent, not actual expenditures. Expenditures may take place over a period of years. Also, contracts reflect the location of the prime contractor and are not adjusted to allow for subcontracting.

b. Includes military and civilian payrolls, military retirement pay, and prime contracts for military and civilian functions of the Department of Defense, such as contracts by the U.S. Army Corps of Engineers.

TABLE X-19. EXPENDITURES OF MICHIGAN LOCAL GOVERNMENTS AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1962, 1967, 1972, 1977, AND 1978

(In millions of dollars)

Item	1962	1967	1972	1977	1978
General expenditure	1,835.1	2,856.6	5,046.2	7,744.1	n.a.
Intergovernmental, net	12.6	85.8	95.0	20.7	n.a.
Direct expenditure	1,822.6	2,770.8	4,951.3	7,723.4	8,399.8
Education	857.2	1,452.6	2,396.6	3,622.6	3,918.8
Higher	10.2	73.8	100.1	238.6	n.a.
Capital outlay	2.2	37.2	13.7	n.a.	n.a.
Other	8.0	36.6	86.4	n.a.	n.a.
Local schools	847.3	1,378.7	2,296.5	3,384.0	n.a.
Capital outlay	157.8	224.6	226.7	n.a.	n.a.
Other	689.5	1,154.1	2,069.8	n.a.	n.a.
Highways	180.6	230.0	351.3	507.5	506.9
Capital outlay	83.9	95.9	159.8	193.8	n.a.
Other	96.7	134.1	191.5	313.7	n.a.
Public welfare	83.6	92.1	141.6	229.3	197.2
Hospitals	114.5	153.9	256.2	415.8	622.3[a]
Capital outlay	8.1	8.2	12.9	n.a.	n.a.
Other	106.4	145.6	243.3	n.a.	n.a.
Health	14.6	21.3	67.5	177.7	n.a.
Police protection	80.9	116.5	245.0	425.6	741.0[b]
Fire protection	46.6	67.0	107.9	184.1	n.a.
Sewerage	66.6	73.6	316.8	291.5	n.a.
Capital outlay	50.1	43.7	245.2	161.6	n.a.
Other	16.5	29.8	71.5	129.9	n.a.
Other sanitation	31.2	41.6	67.8	92.7	n.a.
Parks and recreation	38.3	57.0	87.1	153.3	n.a.
Urban renewal[c]	44.1	39.9	81.1	89.0	n.a.
Airports	5.0	31.4	26.5	48.7	n.a.
Correction	14.3	13.9	32.3	67.8	n.a.
Libraries	15.8	22.2	28.7	41.9	n.a.
Financial administration	20.1	30.9	60.2	97.6	n.a.
General control	48.7	67.0	139.6	232.6	n.a.
General public buildings	17.4	28.9	39.1	69.6	n.a.
Interest on general debt	56.7	92.4	201.6	298.5	331.2
Other	86.1	105.4	304.3	677.7	n.a.
Utility expenditure	136.6	215.1	334.1	513.0	595.5
Water supply	83.3	141.0	210.7	263.9	294.1
Electric power	29.3	43.1	71.3	126.8	n.a.
Transit	23.9	31.0	52.1	122.3	301.5[d]
Insurance trust expenditure, Employee retirement	42.4	61.3	97.9	153.4	169.2
TOTAL	2,014.1	3,133.0	5,478.3	8,410.5	n.a.

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1969), Table 47, and similar census documents for 1962 (Table 46), 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, Government Finances, 1977-78 (Washington, D.C.: 1979), Series GF-77, no. 5, Tables 18 and 21.

a. Includes health.
b. Includes fire protection.
c. Includes housing
d. Electric and transit.
n.a.: not available.

TABLE X-20. EXPENDITURES OF THE STATE OF MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1962, 1967, 1972, 1977, AND 1978

(In millions of dollars)

Item	1962	1967	1972	1977	1978
General expenditure	1,565.2	2,531.3	4,532.0	7,649.3	8,362.7
Intergovernmental, net	609.7	978.6	1,619.1	2,848.3	3,071.4
Direct expenditure	955.5	1,552.7	2,912.9	4,800.9	5,291.3
Education	257.7	612.4	867.4	1,296.6	1,479.2
Higher	246.6	541.2	714.5	1,038.2	1,191.5
Capital outlay	40.0	118.1	67.5	58.7	65.9
Other	206.6	423.1	647.0	979.5	1,125.6
Other	11.1	71.2	152.9	258.4	287.7
Highways	305.7	285.6	344.5	392.0	356.5
Capital outlay	285.9	260.3	316.3	329.3	283.8
Other	19.8	25.2	28.3	62.7	72.7
Public welfare	107.0	234.7	948.4	1,767.8	1,878.7
Hospitals	90.4	142.1	218.6	339.4	381.9
Capital outlay	6.6	14.1	4.7	22.1	16.0
Other	83.8	128.0	213.9	317.3	365.9
Health	16.8	26.0	44.0	126.1	226.7
Police protection	12.5	19.4	38.5	65.6	79.0
Natural resources	31.9	47.0	83.9	91.8	121.2
Capital outlay	1.4	4.3	17.1	n.a.	n.a.
Other	30.5	42.7	66.8	n.a.	n.a.
Urban renewal	0	0	1.9[a]	4.2[a]	4.5
Airports	4.7	2.7	6.9	13.5	19.4
Correction	23.0	31.3	50.7	119.2	145.7
Employment Security Administration	17.5	22.9	55.2	99.1	99.6
Financial administration	17.2	23.7	46.4	80.9	96.9
General control	9.2	16.8	40.1	73.5	85.3
Interest on general debt	27.8	32.3	57.1	105.1	122.1[b]
Other	34.0	55.8	109.2	226.0	194.6
Liquor store expenditure	132.5	187.9	247.7	280.2	309.4
Insurance trust expenditure	167.5	172.8	370.6	1,141.3	818.1
Unemployment compensation	134.8	111.4	260.0	842.1	548.4
Employee retirement	27.6	51.1	96.2	269.9	242.4
Other	5.1	10.3	14.4	29.2	27.3
TOTAL	1,865.2	2,892.0	5,150.3	9,070.8	9,490.2

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1969), Table 47, and similar census documents for 1962 (Table 46), 1972 (Table 46); and 1967 (Table 46); and Bureau of the Census, State Government Finances, 1978 (Washington, D.C.: 1979), Series GF-77, no. 3, Table 9.

a. Includes housing.

b. Includes interest on nongovernmental debt of state agencies, such as toll highway revenue bonds, pollution control bonds, and industrial development bonds.

n.a.: not available.

TABLE X-21. EXPENDITURE OF THE STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (INCLUDING PAYMENTS FROM THE GENERAL FUND TO INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1978 AND 1979

(In thousands of dollars)

Branch and department	1978 expenditures	1979 expenditures
General Fund		
Executive	$ 1,854	$ 1,966
Legislative	40,191	38,982
Judicial	29,528	32,431
Management and budget	80,868	102,418
Attorney General	12,047	15,154
Civil rights	7,226	8,280
Civil service	9,435	10,716
State	51,852	57,178
Treasury	36,052	41,155
Colleges and universities	646,232	732,990
Other education	1,108,872	1,307,180
Public health	125,149	151,347
Mental health	390,287	476,496
Social services	2,247,372	2,413,800
Corrections	136,546	152,356
Military affairs	9,571	11,601
State police	98,474	112,672
Commerce	64,409	79,738
Labor	112,213	117,103
Licensing and regulation	6,806	7,947
Natural resources	101,156	112,672
Agriculture	37,948	35,199
Expenditures not assigned	753,749	834,463
TOTAL	6,107,850	6,853,855
State aeronautics fund	19,666	18,662
State trunkline fund	381,134	443,055
Motor vehicle highway fund	629,116	712,112
Comprehensive transportation fund	56,240	79,437
Game and fish protection fund	22,697	26,585
Michigan state waterways fund	6,089	7,219
Marine safety fund	2,252	2,447
State park improvement fund	1,633	4,366
State recreational land acquisition trust fund	31	1,294
Michigan employment security act, admin. fund	96,349	93,905
Michigan veterans' benefit (trust) fund	2,836	3,483
School aid fund	1,654,028	1,899,280
Motor vehicle accident claims fund	5,689	7,422
State lottery fund	331,804	416,871
State campaign fund	2,867	2,340
TOTAL	9,320,290	10,129,278

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1978 and 1979 (Lansing: annually), pp. 101-102.

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977

(In thousands of dollars)

County	Year	General revenue, excluding interlocal				Direct general expenditures			
		Intergovernmental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Alcona	1972	1,404	1,099	215	3,718	1,626	936	3,038	3,125
	1977	2,136	2,510	331	4,977	2,135	1,075	4,523	5,295
Alger	1972	2,304	1,378	337	4,018	1,844	956	3,325	3,892
	1977	3,446	2,140	636	6,222	3,353	1,027	5,685	6,271
Allegan	1972	13,666	10,825	2,779	27,270	17.043	3,685	22,109	29,225
	1977	23,848	15,249	3,530	42,627	24,594	5,037	38,528	44,428
Alpena	1972	7,850	8,906	6,462	23,219	10,108	2,116	17,684	20,580
	1977	11,840	10,020	10,648	32,508	15,216	3,282	30,743	34,707
Antrim	1972	2,471	3,702	1,533	7,706	3,843	1,107	6,034	7,345
	1977	4,129	6,549	531	11,209	5,740	623	11,043	11,549
Arenac	1972	2,652	2,033	439	5,124	2,822	831	3,917	4,555
	1977	3,755	3,140	740	7,635	4,663	1,244	7,229	8,077
Baraga	1972	2,189	1,366	1,364	4,920	1,686	859	4,179	4,577
	1977	3,330	1,788	2,365	7,483	2,842	1,395	6,991	7,865
Barry	1972	6,751	5,440	2,165	14,356	6,310	2,201	11,674	14,105
	1977	12,037	8,318	2,933	23,288	12,094	2,697	23,771	25,187
Bay	1972	20,709	23,397	12,383	56,488	35,198	6,436	48,631	59,432
	1977	59,345	38,229	17,841	115,415	55,198	8,110	88,236	121,132
Benzie	1972	1,789	2,137	684	4,610	2,203	848	3,751	4,291
	1977	3,098	3,508	769	7,375	3,627	1,476	7,340	8,183
Berrien	1972[a]	31,208	36,350	10,646	78,204	47,218	5,737	68,588	77,543
	1977	54,228	49,908	17,765	121,901	69,315	8,747	112,456	121,198
Branch	1972	7,130	5,511	6,144	18,786	7,818	1,909	16,996	19,597
	1977	11,582	8,905	10,652	31,139	12,287	2,550	29,864	32,494
Calhoun	1972	23,837	29,023	10,083	62,942	40,693	4,365	58,848	65,048
	1977	44,510	39,329	13,850	97,689	59,217	7,829	93,162	100,521
Cass	1972	7,753	6,131	2,261	16,145	9,384	2,277	14,098	16,124
	1977	13,392	8,909	10,293	32,594	17,542	1,389	22,759	27,322
Charlevoix	1972	3,097	4,209	1,359	8,665	3,935	1,378	6,973	7,944
	1977	4,653	5,942	,569	12,164	5,224	2,177	12,199	12,866
Cheboygan	1972	3,501	3,256	687	7,444	3,639	1,434	6,158	7,323
	1977	5,315	5,757	574	11,646	5,945	1,641	10,393	11,345

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977 (cont.)

(In thousands of dollars)

County	Year	General revenue, excluding interlocal				Direct general expenditures			
		Intergovern-mental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Chippewa	1972	7,859	4,780	4,675	17,314	8,747	1,839	14,723	16,659
	1977	14,944	6,521	5,479	26,944	13,339	3,760	25,759	28,359
Clare	1972	3,722	3,989	881	8,593	5,915	957	6,988	8,541
	1977	5,515	7,928	1,267	14,710	7,296	1,559	12,398	13,079
Clinton	1972	10,002	7,369	2,405	19,775	12,021	2,094	19,443	20,694
	1977	14,201	9,921	2,262	26,384	16,633	3,272	25,841	27,445
Crawford	1972	1,558	1,024	648	3,230	2,179	1,071	3,146	4,402
	1977	2,831	3,257	709	6,797	3,141	1,178	5,588	6,334
Delta	1972	7,883	5,339	2,587	15,809	10,895	1,879	16,211	18,791
	1977	13,161	8,910	5,348	27,419	18,464	2,486	25,187	29,421
Dickinson	1972	4,903	3,736	3,593	12,233	5,216	1,520	10,984	11,826
	1977	7,707	6,023	3,447	17,177	7,985	1,696	17,823	19,102
Eaton	1972	15,045	10,307	5,570	30,923	16,544	2,963	25,046	32,328
	1977	20,431	17,455	6,861	44,747	25,235	5,358	44,835	46,456
Emmet	1972	5,045	3,697	2,869	11,610	6,962	1,501	9,435	14,737
	1977	8,041	7,768	3,549	19,358	9,611	1,980	17,503	19,194
Genesee	1972	89,907	103,034	74,955	267,796	131,621	16,487	230,361	279,412
	1977	180,711	151,799	106,753	439,263	207,305	20,369	394,253	454,995
Gladwin	1972	2,813	2,287	458	5,558	3,147	1,106	4,338	5,235
	1977	4,451	4,617	1,070	10,138	5,404	1,893	8,966	10,176
Gogebic	1972	5,003	3,178	3,466	11,647	5,222	1,159	10,898	11,738
	1977	9,539	4,605	2,240	16,384	8,268	767	14,041	14,515
Grand	1972	8,214	8,460	5,262	21,936	12,442	1,723	18,266	20,588
Traverse	1977	13,273	14,659	8,606	36,538	20,927	2,909	34,280	37,226
Gratiot	1972	8,385	6,793	2,788	17,966	11,169	2,154	15,377	18,494
	1977	14,928	9,382	3,629	27,939	15,213	2,968	26,748	28,515
Hillsdale	1972	9,056	5,735	4,054	18,845	7,319	2,684	14,351	17,709
	1977	12,311	8,254	6,524	27,089	12,689	2,750	24,575	26,290
Houghton	1972	7,096	3,128	2,837	13,061	5,443	2,431	11,856	13,559
	1977	11,921	5,279	4,242	21,442	8,942	2,872	20,083	21,172
Huron	1972	5,358	6,522	2,874	14,754	5,730	2,975	11,156	13,537
	1977	9,289	10,497	2,320	22,106	10,901	5,573	21,899	24,866

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977 (cont.)

(In thousands of dollars)

County	Year	General revenue, excluding interlocal				Direct general expenditures			
		Intergovern-mental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Ingham	1972	53,686	72,011	24,768	150,466	78,894	7,790	130,169	154,051
	1977	98,229	101,639	61,444	261,312	135,447	11,481	238,198	267,759
Ionia	1972	11,267	6,530	3,507	21,304	10,372	2,171	16,765	19,015
	1977	15,539	8,583	2,365	26,487	17,363	3,145	27,144	28,338
Iosco	1972	5,805	3,389	1,307	10,502	7,092	1,035	9,045	10,492
	1977	7,894	8,191	1,770	17,855	11,206	1,746	17,493	18,025
Iron	1972	3,330	3,119	1,834	8,283	3,334	1,103	6,591	8,846
	1977	4,805	3,888	2,042	10,735	4,375	1,720	10,666	11,626
Isabella	1972	5,780	5,517	3,039	14,336	7,088	3,327	12,422	14,858
	1977	11,892	8,098	3,067	23,057	11,386	5,206	21,005	25,728
Jackson	1972	27,372	29,005	10,747	67,124	37,660	4,852	56,334	66,452
	1977	60,294	39,977	17,309	117,580	59,651	8,395	94,235	120,300
Kalamazoo	1972	32,930	47,749	14,000	94,679	59,932	7,207	77,084	104,302
	1977	55,083	65,497	20,032	140,612	77,960	10,594	125,323	135,479
Kalkaska	1972	1,401	1,140	552	3,093	1,221	986	2,575	2,888
	1977	2,379	3,699	1,254	7,332	4,558	1,011	6,529	7,982
Kent	1972	78,215	86,311	40,649	205,175	106,208	11,930	159,943	208,815
	1977	167,004	112,887	60,043	339,934	173,346	18,770	289,174	330,059
Keweenaw	1972	524	351	183	1,058	170	382	713	894
	1977	639	326	182	1,147	24	840	1,042	1,376
Lake	1972	1,218	1,127	1,150	3,494	1,017	802	2,203	2,615
	1977	2,374	2,212	164	4,750	2,061	1,088	3,940	4,564
Lapeer	1972	9,049	6,737	11,460	27,247	10,355	2,147	24,342	27,894
	1977	17,655	12,603	10,172	40,430	19,050	2,404	35,859	38,114
Leelanau	1972	1,417	2,245	453	4,116	2,083	816	3,514	3,758
	1977	2,504	4,012	1,763	8,279	4,405	976	6,216	7,436
Lenawee	1972	14,441	16,475	5,613	36,529	19,032	3,249	29,550	38,982
	1977	23,135	23,978	6,894	54,007	32,560	5,124	50,108	56,764
Livingston	1972	9,126	9,891	2,647	21,664	13,344	2,919	19,336	21,933
	1977	21,507	21,821	5,489	48,817	34,457	4,058	41,628	51,842
Luce	1972	1,935	928	1,459	4,323	3,148	833	3,649	5,649
	1977	3,792	1,524	969	6,285	2,364	752	5,387	5,793

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977 (cont.)

(In thousands of dollars)

County	Year	General revenue, excluding interlocal				Direct general expenditures			
		Intergovern-mental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Mackinac	1972	2,031	1,801	1,065	4,897	2,061	826	3,971	4,484
	1977	3,678	3,327	1,368	8,373	3,803	1,516	7,819	8,490
Macomb	1972	117,780	155,864	46,092	319,736	199,011	20,393	280,083	334,447
	1977	214,887	255,562	63,451	533,900	301,981	24,388	459,231	530,971
Manistee	1972	3,678	3,894	3,319	10,892	3,797	1,631	9,024	10,866
	1977	6,776	6,286	5,678	18,740	5,997	1,909	16,754	17,283
Marquette	1972	14,028	9,075	3,493	26,596	16,794	3,981	22,699	28,640
	1977	23,025	17,283	6,082	46,390	22,194	7,086	39,749	47,588
Mason	1972	5,755	5,578	1,916	13,249	8,149	1,763	10,903	13,892
	1977	9,122	10,431	3,249	22,802	12,523	2,641	19,147	21,920
Mecosta	1972	4,150	4,109	3,759	12,017	5,065	1,325	10,722	11,543
	1977	8,440	6,864	1,692	16,996	8,692	2,104	13,648	18,052
Menominee	1972	5,043	3,222	764	9,029	4,705	1,689	7,297	8,511
	1977	9,058	3,956	4,792	17,806	7,681	2,533	18,380	20,245
Midland	1972	11,929	20,916	3,599	36,444	19,219	4,451	28,108	36,547
	1977	14,834	31,902	9,683	56,419	26,754	6,302	47,963	56,682
Missaukee	1972	1,569	848	666	3,083	1,289	1,146	2,389	3,113
	1977	2,244	2,165	413	4,822	2,453	1,089	4,363	4,758
Monroe	1972	26,212	21,920	9,375	57,507	28,696	4,887	43,256	59,281
	1977	31,666	49,773	17,715	99,154	47,767	7,121	87,893	95,071
Montcalm	1972	9,903	6,959	2,174	19,036	13,432	2,440	18,173	19,944
	1977	16,301	9,681	2,902	28,884	21,044	3,021	27,578	30,794
Montmorency	1972	1,125	943	228	2,296	536	648	1,303	1,696
	1977	1,619	2,159	434	4,212	1,847	801	3,966	4,114
Muskegon	1972	37,949	27,672	11,160	76,782	43,750	5,033	63,817	72,527
	1977	64,235	37,050	23,630	124,915	71,359	7,105	122,601	131,566
Newaygo	1972	6,443	3,930	2,057	12,430	6,535	2,056	10,126	12,019
	1977	11,420	6,538	2,186	20,144	10,598	3,192	17,132	18,488
Oakland	1972	148,695	264,593	87,276	500,564	294,395	33,496	423,161	577,262
	1977	293,938	411,342	132,431	837,711	429,215	47,917	768,026	860,236
Oceana	1972	3,784	2,455	609	6,848	3,745	1,210	5,999	6,630
	1977	7,196	3,363	1,026	11,585	6,067	1,889	10,585	10,985

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977 (cont.)

(In thousands of dollars)

County	Year	General revenue, excluding interlocal				Direct general expenditures			
		Intergovernmental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Ogemaw	1972	2,022	2,180	452	4,654	2,262	1,432	3,849	4,825
	1977	2,977	4,367	767	8,111	3,754	2,059	8,107	8,789
Ontonagon	1972	2,866	2,371	975	6,212	3,102	1,434	5,072	6,132
	1977	4,878	3,153	1,662	9,693	4,403	1,495	9,848	10,518
Osceola	1972	3,668	2,900	849	7,417	4,329	1,042	6,055	6,740
	1977	6,099	4,817	901	11,817	7,219	1,459	10,796	11,276
Oscoda	1972	1,152	844	135	2,132	1,066	598	1,866	2,090
	1977	1,312	2,126	316	3,754	1,982	974	3,550	3,713
Otsego	1972	1,955	2,576	519	5,049	2,835	1,089	3,988	5,017
	1977	2,772	5,380	691	8,843	5,159	1,154	8,543	8,774
Ottawa	1972	19,473	24,280	17,560	61,313	29,754	5,078	52,0[illegible]	63,912
	1977	40,272	34,174	20,729	95,175	45,024	8,218	81,6[illegible]	91,214
Presque Isle	1972[a]	3,382	2,720	441	6,543	2,605	1,001	4,469	5,482
	1977	4,636	3,924	530	9,090	4,408	1,542	7,070	8,117
Roscommon	1972	2,122	3,339	563	6,023	3,400	620	4,984	5,228
	1977	3,715	6,857	2,419	12,991	8,417	1,733	12,408	14,893
Saginaw	1972	46,418	47,974	17,156	111,548	56,162	8,543	88,012	110,349
	1977	82,172	67,329	27,127	176,628	88,284	11,008	163,242	185,148
St. Clair	1972	24,200	27,195	11,845	63,239	31,619	5,464	54,113	64,261
	1977	50,541	42,457	22,603	115,601	56,521	7,722	103,167	135,159
St. Joseph	1972	9,036	9,222	4,824	23,081	13,089	2,056	19,866	27,101
	1977	14,690	13,339	9,283	37,312	20,779	3,760	36,843	39,181
Sanilac	1972	7,573	5,504	3,283	16,360	10,392	2,794	13,096	19,571
	1977	12,075	10,136	2,306	24,517	12,886	3,381	22,671	23,724
Schoolcraft	1972	2,258	1,074	1,577	4,909	1,589	1,042	3,952	4,789
	1977	3,044	2,238	1,568	6,850	3,448	1,842	8,244	12,107
Shiawassee	1972	13,011	8,873	2,648	24,532	14,476	2,938	21,325	22,778
	1977	22,415	14,145	3,958	40,518	25,295	4,075	38,676	42,233
Tuscola	1972	10,323	7,435	3,410	21,168	11,966	4,055	17,826	22,806
	1977	17,844	11,949	4,276	34,069	20,556	5,442	29,656	34,017
Van Buren	1972	11,552	9,104	7,288	27,944	14,163	3,286	25,203	27,205
	1977	21,651	13,503	14,302	49,456	25,714	4,235	42,515	48,383

TABLE X-22. GENERAL REVENUE AND DIRECT GENERAL EXPENDITURES OF LOCAL GOVERNMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED: 1972 AND 1977 (cont.)

(In thousands of dollars)

		General revenue, excluding interlocal				Direct general expenditures			
County	Year	Intergovern-mental	Taxes	Charges and misc.	Total	Education	Highways	Total other than outlay	Total
Washtenaw	1972	30,239	62,822	14,023	107,083	62,435	6,197	98,666	114,674
	1977	60,073	103,784	25,984	189,841	92,655	11,412	162,786	178,034
Wayne	1972	631,765	803,916	285,384	1,721,066	669,287	80,844	1,447,419	1,684,841
	1977	1,279,992	1,024,723	421,510	2,726,225	928,396	123,964	2,181,438	2,479,050
Wexford	1972	4,272	2,899	841	8,012	3,977	1,633	6,685	7,657
	1977	7,008	5,817	1,525	14,350	7,123	2,413	12,866	15,100
Michigan	1972[a]	1,814,920	2,184,721	854,158	4,853,799	2,396,637	351,290	4,092,351	4,951,258
	1977	3,455,228	3,137,911	1,293,481	7,886,620	3,622,562	507,501	6,807,547	7,723,443
United States	1972	39,694,000	49,739,000	15,810,000	105,243,000	48,661,000	6,274,000	81,065,000	106,499,000
	1977	76,831,368	74,851,555	27,362,021	179,044,944	75,707,058	9,204,799	148,960,384	170,938,144

SOURCE: Bureau of the Census, 1977 Census of Governments, Compendium of Government Finances (Washington, D.C.: 1979), vol. 4, no. 5, Tables 47 and 54; and Bureau of the Census, 1972 Census of Governments, Compendium of Government Finances (Washington, D.C.: 1974), vol. 4, no. 5, Tables 3, 10, 46, and 53.

NOTE: Several local units operate in more than one county. The City of Lansing and the Lansing City School District largely are in Ingham County but extend into Clinton and Eaton counties. Alpena School District operates in Alpena and Presque Isle counties. Bay City School District extends into Saginaw County, Huron Valley School District lies in Oakland and Livingston counties. Lansing Community College District extends into Ingham, Ionia, and Livingston counties. Oakland Community College District extends into Oakland, Lapeer, Livingston, and Washtenaw counties. Plymouth Community School District operates in Wayne and Washtenaw counties. Rochester Community School District operates in Oakland and Macomb counties. Warren Consolidated School District operates in Macomb and Oakland counties. Peoples Community Hospital Authority operates in Wayne and Washtenaw counties. Southeastern Michigan Transportation Authority operates in Wayne, Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw counties. There might be others. In the cases mentioned here, the first county name is the one which is credited with the statistics for that local unit of government.

a. County government figures for Berrien and Presque Isle were not included in 1972.

TABLE X-23. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1979 AND 1980

County	Real property		Personal property	
	1979	1980	1979	1980
Alcona	$ 156,268,816	$ 175,501,482	$ 5,748,400	$ 6,008,500
Alger	64,848,754	71,251,712	9,169,264	9,322,481
Allegan[a]	482,607,106	590,228,086	82,736,024	91,660,598
Alpena	226,263,972	269,290,491	43,959,630	42,324,059
Antrim	220,080,240	256,520,501	10,928,575	11,779,794
Arenac	123,245,446	144,728,497	8,560,505	9,211,231
Baraga	48,303,740	52,981,178	5,920,550	6,693,000
Barry	268,014,496	315,880,116	21,120,197	22,737,518
Bay[a]	1,013,394,387	1,137,434,584	103,789,750	113,044,600
Benzie	128,755,658	142,848,338	6,674,534	6,932,125
Berrien	1,329,304,616	1,451,914,101	198,985,510	224,513,314
Branch	275,142,302	310,732,993	24,249,102	25,678,216
Calhoun	812,790,148	895,144,732	131,579,877	143,289,861
Cass	331,795,965	386,231,425	32,467,154	34,516,513
Charlevoix	246,427,497	277,850,088	22,276,150	23,884,600
Cheboygan[a]	218,527,113	224,377,722	16,659,948	19,740,441
Chippewa	179,655,709	197,928,554	17,401,139	18,361,078
Clare	200,306,515	221,152,556	37,440,522	41,959,063
Clinton	388,524,577	440,826,983	27,544,121	29,839,108
Crawford	110,524,250	118,421,375	9,436,861	10,458,240
Delta	220,332,832	240,314,099	47,173,591	53,375,883
Dickinson	146,733,939	173,472,971	21,794,747	23,011,803
Eaton	592,537,658	686,711,095	49,647,015	57,088,626
Emmet	263,769,805	299,350,393	30,571,519	32,531,261
Genesee	2,838,266,118	3,226,791,130	499,918,312	549,153,286

TABLE X-23. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1979 AND 1980 (cont.)

County	Real property		Personal property	
	1979	1980	1979	1980
Gladwin	$ 162,306,181	$ 184,949,683	$ 9,311,862	$ 10,517,359
Gogebic	92,297,529	105,272,902	20,833,035	21,415,410
Grand Traverse	502,128,597	597,925,019	59,499,223	66,292,917
Gratiot	263,460,767	297,582,845	35,072,456	35,737,700
Hillsdale	301,947,183	368,042,868	20,864,030	22,660,225
Houghton	143,931,336	165,212,394	27,978,438	29,848,452
Huron	496,435,545	549,036,894	26,708,068	29,683,648
Ingham	1,537,571,228	1,742,296,654	251,549,289	285,612,150
Ionia	253,955,680	309,908,780	24,794,550	26,898,140
Iosco	233,260,744	257,203,189	18,696,184	19,984,080
Iron	94,080,206	108,511,603	19,193,663	19,852,560
Isabella	281,093,297	317,985,388	26,587,632	30,721,734
Jackson	851,492,722	954,976,653	132,423,660	148,063,603
Kalamazoo	1,415,229,232	1,587,012,588	208,080,023	220,874,537
Kalkaska	118,643,314	132,935,452	37,184,869	47,792,485
Kent	2,656,289,219	3,073,096,396	372,864,867	423,828,382
Keweenaw	20,916,550	23,373,109	3,362,182	3,848,073
Lake	103,269,257	121,866,821	4,573,672	4,963,382
Lapeer	478,806,889	562,210,368	38,304,313	42,184,349
Leelanau	242,318,044	281,758,055	7,730,076	8,533,327
Lenawee	695,740,224	785,749,308	77,940,910	82,785,676
Livingston	800,135,281	970,362,019	72,996,409	85,163,961
Luce	42,943,984	45,058,061	1,769,444	1,753,514
Mackinac	118,808,037	134,980,883	25,508,615	26,146,729
Macomb	4,978,087,938	5,838,286,232	682,665,072	756,282,281

TABLE X-23. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1979 AND 1980 (cont.)

County	Real property		Personal property	
	1979	1980	1979	1980
Manistee	$ 174,799,641	$ 199,169,098	$ 46,377,120	$ 54,315,238
Marquette	507,212,193	568,287,558	52,228,266	55,525,947
Mason	360,033,341	387,813,577	37,115,028	41,214,364
Mecosta	214,728,232	253,476,848	31,251,220	35,704,845
Menominee	152,399,512	174,133,283	13,436,044	14,811,221
Midland	638,832,344	720,266,365	384,813,422	439,397,953
Missaukee	93,029,512	107,441,112	13,024,013	15,727,591
Monroe	1,256,858,686	1,386,063,268	134,327,216	151,995,055
Montcalm	260,958,570	324,359,886	44,974,284	47,785,388
Montmorency	101,700,655	114,767,952	4,417,770	4,705,577
Muskegon	830,025,967	929,775,950	111,323,413	124,035,880
Newaygo[a]	251,577,014	286,011,840	26,156,170	26,978,712
Oakland	8,930,049,562	10,614,279,649	917,753,579	1,037,173,633
Oceana	162,199,291	185,400,117	10,712,503	11,056,558
Ogemaw	164,507,765	183,600,106	14,822,074	15,941,138
Ontonagon	75,441,556	81,042,170	8,458,823	9,955,222
Osceola	153,171,810	173,742,866	34,227,213	38,809,324
Oscoda	82,687,561	89,773,991	6,256,465	6,290,677
Otsego	195,526,531	217,459,349	32,412,516	36,514,350
Ottawa	1,038,865,632	1,251,308,521	166,147,961	204,023,739
Presque Isle	147,235,078	158,773,824	16,762,968	18,073,790
Roscommon	223,793,624	253,821,404	13,886,829	15,410,750
Saginaw	1,507,396,144	1,691,019,560	257,925,562	268,910,398
St. Clair	1,114,343,892	1,345,731,379	208,534,677	211,294,053
St. Joseph[a]	386,990,543	441,839,189	52,207,620	57,626,617

TABLE X-23. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1979 AND 1980 (cont.)

County	Real property		Personal property	
	1979	1980	1979	1980
Sanilac	$ 394,748,548	$ 436,347,696	$ 20,876,666	$ 24,031,548
Schoolcraft	63,257,032	69,131,570	11,316,627	12,122,766
Shiawassee	419,223,503	474,829,870	35,861,737	37,834,597
Tuscola	440,903,373	480,959,377	30,878,655	34,914,265
Van Buren	427,403,349	482,058,194	48,544,205	56,618,463
Washtenaw	2,053,121,992	2,402,798,041	298,226,535	327,612,431
Wayne	12,502,735,940	13,994,278,660	2,480,759,640	2,630,285,290
Wexford	175,962,939	196,989,872	19,138,386	20,563,214
TOTAL	63,273,291,975	72,500,231,498	9,257,400,746	10,145,818,467

SOURCE: Michigan State Tax Commission, special release.

a. Amended to recognize county equalization petition and stipulation filed with Michigan Tax Tribunal prior to May 27.

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate*	Total Taxes
Adrian	$117,366,300	$ 674,856	$ 1,643,145	$ 4,269,964	56.13	$ 6,587,965
Albion	47,056,485	291,280	565,148	1,774,500	55.91	2,630,928
Algonac	23,513,314	131,439	316,724	796,561	52.94	1,244,724
Allegan	27,276,450	182,752	354,594	766,741	47.81	1,304,087
Allen Park	268,021,206	2,095,926	4,154,557	10,056,211	60.84	16,306,694
Alma	51,750,757	227,703	815,628	1,894,560	56.77	2,937,891
Alpena	106,804,930	758,315	2,015,409	3,146,473	55.43	5,920,197
Ann Arbor	777,334,800	5,029,356	14,567,254	34,801,279	69.98	54,397,889
Au Gres	5,513,759	27,215	89,212	135,877	45.76	252,304
Auburn	11,300,635	74,586	101,706	352,729	46.81	529,021
Bad Axe	18,822,883	80,167	235,286	382,481	37.08	697,934
Bangor	7,462,712	49,626	126,867	242,539	56.15	419,032
Battle Creek	214,302,024	1,326,530	3,106,736	8,606,641	60.85	13,039,907
Bay City	228,753,820	1,509,777	6,485,173	7,117,238	66.06	15,112,188
Beaverton	6,162,638	43,453	98,533	186,481	53.30	328,467
Belding	22,345,540	115,080	316,309	728,554	51.91	1,159,943
Belleville	16,656,933	130,257	273,174	659,448	63.81	1,062,880
Benton Harbor	52,064,544	287,657	1,252,208	1,722,816	62.67	3,262,680
Berkley	97,302,650	533,219	1,920,754	4,386,058	70.30	6,840,031
Bessemer	8,505,850	68,642	194,952	306,381	67.01	569,975
Big Rapids	36,288,100	221,357	175,634	1,073,725	40.53	1,470,717
Birmingham	261,703,242	1,434,134	4,744,680	10,216,895	62.65	16,395,708
Bloomfield Hills	100,494,732	550,711	1,423,327	3,693,942	56.40	5,667,980
Boyne City	20,138,004	110,762	447,068	657,508	60.35	1,215,338
Bridgman	17,736,300	97,993	248,308	238,323	32.96	584,624

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Brighton	$ 36,897,411	$ 193,711	$ 599,583	$ 1,493,238	61.97	$ 2,286,533
Bronson	10,388,455	76,875	158,428	319,757	53.43	555,060
Brown City	5,819,273	29,101	98,928	160,961	49.66	288,990
Buchanan	35,583,550	196,599	498,170	1,251,651	54.70	1,946,420
Burton	190,161,384	1,127,656	1,660,031	6,975,319	51.34	9,763,006
Cadillac	56,165,532	379,117	1,333,941	1,768,091	61.98	3,481,149
Carson City	5,132,500	28,229	92,385	162,772	55.21	283,386
Caspian	3,402,750	28,583	78,263	101,402	61.20	208,248
Cedar Springs	8,438,800	40,506	118,143	271,561	50.98	430,210
Center Line	75,355,684	412,949	1,526,706	3,268,013	69.11	5,207,668
Charlevoix	32,373,700	178,055	388,484	940,456	46.55	1,506,996
Charlotte	48,383,500	266,109	943,478	1,589,882	57.86	2,799,469
Cheboygan	27,700,779	159,002	625,206	746,813	55.27	1,531,022
Clare	20,226,977	111,248	343,859	717,249	57.96	1,172,356
Clawson	96,198,393	527,167	1,464,355	3,837,354	60.59	5,828,877
Clio	13,434,240	79,665	201,514	442,793	53.89	723,971
Coldwater	56,924,302	421,240	788,402	1,817,024	53.17	3,026,665
Coleman	4,441,791	20,433	79,954	171,991	61.32	272,378
Coloma	10,408,008	57,504	166,528	366,622	56.75	590,654
Cooperville	12,912,376	57,333	200,142	390,199	50.16	647,674
Corunna	14,623,540	95,872	237,633	432,520	52.38	766,025
Croswell	12,099,000	60,495	267,267	336,352	54.89	664,114
Crystal Falls	7,533,750	63,284	107,733	235,806	54.00	406,823
Davison	31,389,200	186,138	324,878	1,208,798	54.79	1,719,814
Dearborn	1,205,869,833	9,429,902	21,802,145	40,227,241	59.26	71,459,289

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Dearborn Heights	$403,329,974	$ 3,154,040	$ 6,428,529	$ 15,723,412	62.74	$ 25,305,982
Detroit	4,854,762,750	37,964,245	159,941,687	166,955,291	75.16	364,861,222
Dewitt	15,429,158	87,946	229,895	639,539	62.05	957,379
Dowagiac	26,767,333	188,710	468,432	777,858	53.61	1,435,000
Durand	17,939,194	117,591	271,152	587,832	54.44	976,575
East Detroit	220,593,230	1,158,114	3,972,334	9,602,105	66.79	14,732,553
East Grand Rapids	88,050,400	422,642	1,628,932	3,742,142	65.80	5,793,716
East Jordan	12,478,993	68,635	227,742	444,876	59.40	741,254
East Lansing	175,846,780	1,396,223	3,086,111	8,590,125	74.34	13,072,460
East Tawas	17,465,342	82,594	253,248	397,338	41.98	733,179
Eaton Rapids	23,129,809	127,215	318,036	781,325	53.03	1,226,576
Ecorse	217,577,688	1,701,458	4,819,348	6,687,797	60.71	13,208,603
Escanaba	75,169,650	409,675	1,165,156	2,681,301	56.62	4,256,132
Essexville	27,196,417	179,500	333,972	510,296	37.64	1,023,768
Evart	12,739,506	70,067	159,836	339,511	44.70	569,414
Farmington	103,745,010	568,523	1,193,068	4,459,998	59.97	6,221,588
Farmington Hills	502,437,200	2,753,356	4,521,948	21,635,480	57.54	28,910,783
Fennville	4,498,307	30,139	62,976	155,552	55.28	248,667
Fenton	55,560,672	329,476	876,750	2,231,742	61.88	3,437,968
Ferndale	151,785,150	831,783	3,538,123	6,110,781	69.05	10,480,686
Ferrysburg	16,183,240	71,854	142,423	544,712	46.90	758,988
Flat Rock	123,923,350	969,081	1,734,817	4,332,353	56.78	7,036,251
Flint	1,184,289,030	7,022,834	10,208,180	52,218,204	58.64	69,449,218
Flushing	53,730,267	318,621	529,242	1,942,888	51.94	2,790,752
Frankenmuth	39,511,405	221,264	462,373	1,344,178	51.32	2,027,815

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Frankfort	$ 11,130,600	$ 58,436	$ 204,803	$ 294,961	50.15	$ 558,200
Fraser	105,541,950	554,095	1,933,529	4,712,976	68.22	7,200,599
Fremont	30,585,130	178,923	336,438	973,831	48.69	1,489,192
Gaastra	1,116,637	9,380	25,685	33,276	61.20	68,340
Galesburg	7,715,300	39,348	77,153	313,627	55.75	430,128
Garden City	171,809,648	1,343,551	2,921,123	6,583,746	63.14	10,848,420
Gaylord	25,219,982	116,012	327,868	608,810	41.74	1,052,691
Gibraltar	48,457,962	378,941	944,932	1,925,719	67.06	3,249,593
Gladstone	19,915,175	108,543	338,558	634,902	54.33	1,082,002
Gladwin	12,705,892	89,589	224,584	403,158	56.46	717,331
Gobles	3,044,335	20,245	60,888	87,677	55.45	168,810
Grand Blanc	54,701,763	324,382	497,239	2,102,739	53.46	2,924,360
Grand Haven	84,868,640	376,817	1,317,173	2,856,594	53.62	4,550,583
Grand Ledge	30,692,000	168,806	522,686	1,213,870	62.08	1,905,362
Grand Rapids	939,890,225	4,511,473	9,444,023	31,829,932	48.71	45,785,428
Grandville	81,682,200	392,075	735,140	2,653,825	46.29	3,781,040
Grant	2,927,200	17,124	39,517	91,475	50.60	148,116
Grayling	15,273,700	108,901	221,469	434,537	50.08	764,907
Greenville	48,092,600	264,509	677,153	1,515,590	51.09	2,457,252
Grosse Pointe	69,090,620	540,289	1,541,418	2,820,970	70.96	4,902,677
Grosse Pte Farms	141,905,490	1,109,701	2,547,213	5,794,001	66.60	9,450,915
Grosse Pte Park	103,542,379	809,701	2,019,080	4,227,635	68.15	7,056,417
Grosse Pte Woods	189,164,152	1,479,264	3,210,118	7,722,397	65.61	12,411,780
Hamtramck	108,022,783	844,738	3,142,831	3,484,815	69.17	7,472,384
Hancock	22,499,797	133,498	372,729	622,119	50.15	1,128,346

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Harbor Beach	$ 22,300,459	$ 94,978	$ 329,378	$ 580,927	45.08	$ 1,005,282
Harbor Springs	15,330,500	88,809	197,609	377,128	43.28	663,546
Harper Woods	135,691,857	1,061,110	2,755,381	4,281,951	59.68	8,098,443
Harrison	11,155,300	61,354	151,158	335,105	49.09	547,617
Harrisville	3,676,600	15,626	28,494	83,275	34.65	127,394
Hart	10,664,675	57,429	124,777	315,994	46.71	498,200
Hartford	8,105,447	53,903	121,585	273,154	55.35	448,641
Hastings	37,216,200	218,459	602,902	1,168,961	53.48	1,990,322
Hazel Park	98,307,625	538,726	2,584,540	4,163,328	74.12	7,286,593
Highland Park	145,641,300	1,138,915	4,511,988	6,026,637	80.18	11,677,540
Hillsdale	40,335,440	191,593	685,709	1,311,305	54.26	2,188,607
Holland	166,954,267	840,155	2,880,144	6,038,930	58.45	9,759,229
Houghton	17,455,359	103,568	265,711	507,427	50.23	876,706
Howell	48,997,300	257,236	881,951	1,805,551	60.10	2,944,738
Hudson	14,342,839	82,471	164,943	441,473	48.03	688,887
Hudsonville	21,114,700	93,749	147,803	620,075	40.81	861,628
Huntington Woods	55,713,100	305,308	1,096,475	2,485,991	69.78	3,887,774
Imlay City	16,085,459	94,824	211,051	520,976	51.40	826,851
Inkster	129,231,689	1,010,592	2,752,759	5,287,644	70.04	9,050,994
Ionia	27,339,300	140,797	423,765	733,896	47.49	1,298,459
Iron Mountain	46,694,561	375,891	957,240	1,481,855	60.29	2,814,986
Iron River	11,763,128	98,810	276,768	350,541	61.73	726,120
Ironwood	30,063,900	242,616	616,310	977,678	61.09	1,836,604
Ishpeming	38,469,779	253,901	865,570	1,171,636	59.56	2,291,106
Ithaca	13,838,069	60,888	229,712	418,601	51.25	709,201

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Jackson	$222,320,400	$ 1,545,127	$ 3,076,326	$ 9,776,812	64.76	$14,398,265
Kalamazoo	458,624,200	2,338,983	8,314,857	19,052,549	64.77	29,706,389
Keego Harbor	14,440,500	79,134	281,592	595,526	66.22	956,252
Kentwood	204,314,050	980,707	1,235,545	7,254,062	46.35	9,470,314
Kingsford	33,417,674	269,012	632,568	1,005,204	57.06	1,906,784
Laingsburg	3,665,291	24,027	80,639	117,942	60.73	222,607
Lake City	5,856,764	28,698	76,138	134,120	40.80	238,956
Lansing	797,770,275	6,306,767	8,582,688	33,756,703	60.98	48,646,159
Lapeer	39,409,200	232,317	433,501	1,404,465	52.53	2,070,284
Lathrup Village	46,713,208	255,988	686,684	1,782,576	58.34	2,725,249
Leslie	8,808,762	69,942	107,908	336,584	58.40	514,434
Lincoln Park	233,847,135	1,828,685	4,136,724	7,836,155	59.02	13,801,563
Litchfield	8,032,992	38,162	100,580	273,719	51.35	412,460
Livonia	1,013,751,925	7,927,540	14,001,238	45,025,711	66.05	66,954,489
Lowell	19,693,400	94,528	246,168	706,402	53.17	1,047,098
Ludington	52,830,000	278,097	1,014,338	1,198,196	47.14	2,490,632
Luna Pier	35,073,076	208,685	675,156	1,041,990	54.91	1,925,831
Mackinac Island	9,997,422	48,488	119,969	206,447	37.50	374,904
Madison Heights	265,346,601	1,454,099	3,937,885	11,137,173	62.29	16,529,157
Manistee	43,402,289	250,214	1,051,811	1,251,288	58.83	2,553,313
Manistique	17,660,440	113,380	415,020	618,998	64.97	1,147,399
Manton	4,991,781	33,695	64,893	131,783	46.15	230,571
Marine City	26,854,225	150,115	530,371	797,705	55.05	1,478,191
Marquette	188,130,789	1,241,663	1,937,757	6,518,732	51.55	9,698,152
Marshall	50,713,748	313,918	954,636	2,013,843	64.72	3,282,397

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Marysville	$ 119,317,425	$ 66,984	$ 2,040,805	$ 3,657,676	53.35	$ 6,365,465
Mason	30,760,900	244,242	397,431	1,195,984	59.74	1,837,656
McBain	2,373,011	11,618	35,566	61,174	45.66	108,358
Melvindale	85,485,807	668,499	1,993,041	3,210,847	68.69	5,872,387
Memphis	5,178,418	27,716	103,568	149,853	54.29	281,137
Menominee	57,731,650	344,138	850,907	1,757,929	51.15	2,952,974
Midland	684,357,660	3,148,846	6,588,734	19,484,058	42.70	29,221,639
Milan	33,068,600	208,088	437,828	1,112,351	53.17	1,758,267
Monroe	380,174,360	2,262,037	4,964,316	11,978,779	50.52	19,205,132
Montague	12,102,000	79,873	211,788	407,232	57.75	698,893
Morenci	10,489,100	60,312	136,358	335,232	50.71	531,902
Mount Clemens	121,431,202	637,514	2,541,555	5,368,288	70.39	8,547,357
Mt. Morris	14,878,850	88,257	297,667	549,441	62.87	935,365
Mt. Pleasant	82,210,675	797,444	1,134,507	2,807,494	57.65	4,739,445
Munising	18,018,744	128,835	450,473	604,530	65.70	1,183,839
Muskegon	212,509,075	1,402,560	3,857,676	8,063,593	62.70	13,323,829
Muskegon Heights	49,902,375	329,356	898,243	1,932,702	63.33	3,160,300
Negaunee	23,147,695	152,775	520,823	537,837	52.34	1,211,435
New Baltimore	34,695,946	182,154	608,384	1,250,962	58.84	2,041,500
New Buffalo	15,177,872	83,858	295,974	472,290	56.14	852,121
Newaygo	6,130,137	35,861	85,822	194,019	51.50	315,702
Niles	77,181,632	426,429	1,535,914	2,849,469	62.34	4,811,812
North Muskegon	32,411,300	213,915	341,939	1,229,037	55.07	1,784,890
Northville	53,521,346	365,463	770,708	2,450,207	67.01	3,586,378
Norton Shores	135,461,500	894,046	1,167,728	5,049,809	52.50	7,111,583

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Norway	$ 11,980,845	$ 96,446	$ 179,782	$ 345,647	51.91	$ 621,375
Novi	215,323,498	1,179,973	2,646,326	9,334,948	61.12	13,161,247
Oak Park	195,150,740	1,069,426	5,211,759	8,233,907	74.38	14,515,092
Olivet	4,363,900	24,001	52,367	152,126	52.36	228,494
Omer	1,392,641	6,874	22,492	34,315	45.73	63,681
Onaway	4,441,886	25,496	79,954	108,871	48.25	214,321
Orchard Lake Village	28,971,650	158,765	405,603	1,184,752	60.37	1,749,120
Otsego	27,280,500	182,779	300,086	845,423	48.69	1,328,288
Owosso	75,801,103	497,255	1,257,752	2,321,030	53.77	4,076,037
Parchment	26,218,200	133,713	275,291	980,299	52.99	1,389,302
Perry	8,250,693	54,092	140,357	252,042	54.12	446,491
Petersburg	5,002,597	29,765	85,045	177,092	58.35	291,903
Petoskey	47,088,730	272,785	561,320	1,511,558	49.81	2,345,664
Pinconning	9,207,301	60,770	174,939	254,703	53.26	490,412
Plainwell	22,591,759	151,365	363,732	817,596	58.99	1,332,692
Pleasant Ridge	23,505,250	128,809	586,694	929,163	69.97	1,644,666
Plymouth	92,597,368	724,111	1,477,294	3,877,978	65.65	6,079,383
Pontiac	546,810,700	2,996,523	11,931,437	21,117,829	65.92	36,045,789
Port Huron	195,840,127	1,094,752	3,510,815	7,276,458	60.67	11,882,025
Portage	304,546,857	1,553,189	3,176,424	11,715,051	54.00	16,444,664
Portland	16,033,099	82,570	240,532	468,070	49.35	791,172
Potterville	5,666,942	31,168	85,004	218,763	59.10	334,935
Reading	3,633,180	17,258	56,315	103,945	48.86	177,518
Reed City	11,727,174	64,501	172,600	307,954	46.48	545,055
Richmond	20,732,846	108,847	362,825	760,792	59.45	1,232,464

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
River Rouge	$ 236,232,894	$ 1,847,341	$ 5,456,982	$ 6,983,044	60.48	$ 14,287,368
Riverview	111,211,587	869,675	2,169,824	3,855,706	62.00	6,895,204
Rochester	65,532,000	359,115	851,916	2,490,216	56.48	3,701,247
Rockford	21,083,200	101,199	295,179	701,016	52.05	1,097,395
Rockwood	22,677,428	177,337	442,211	901,201	67.06	1,520,749
Rogers City	28,364,627	162,810	482,191	798,748	50.90	1,443,749
Romulus	227,937,820	1,782,474	2,781,988	9,285,899	60.76	13,850,360
Roosevelt Park	32,936,100	217,378	329,361	1,228,517	53.90	1,775,256
Rose City	4,307,516	22,399	77,592	126,555	52.59	226,546
Roseville	319,797,454	1,678,937	5,689,197	12,993,305	63.67	20,361,438
Royal Oak	473,617,725	2,595,425	8,675,364	21,830,294	69.89	33,101,083
Saginaw	510,596,050	2,859,338	5,356,164	18,851,508	53.01	27,067,010
Saline	69,070,000	446,883	690,700	2,529,343	53.09	3,666,926
Sandusky	14,267,440	72,337	263,948	348,982	47.96	684,266
Sault Ste. Marie	67,953,774	414,518	1,617,300	2,035,895	59.86	4,067,713
Scottville	6,792,836	35,757	141,637	197,875	55.24	375,270
South Haven	35,856,789	238,448	554,346	1,012,954	50.36	1,805,748
South Lyon	32,434,100	177,739	421,645	1,161,627	54.30	1,761,011
Southfield	918,149,100	5,031,457	14,377,297	35,455,136	59.75	54,863,890
Southgate	190,929,905	1,493,072	4,582,366	6,950,820	68.23	13,026,258
Springfield	37,920,141	234,726	686,359	1,542,543	64.97	2,463,627
St. Clair	37,590,065	210,128	745,035	1,116,613	55.11	2,071,776
St. Clair Shores	460,294,314	2,416,545	7,917,062	19,628,821	65.09	29,962,428
St. Ignace	16,706,680	81,027	275,493	463,610	49.09	820,131
St. Johns	44,501,357	253,658	845,526	1,349,726	55.03	2,448,910

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
St. Joseph	$ 97,177,973	$ 536,908	$ 1,736,065	$ 4,027,010	64.83	$ 6,299,984
St. Louis	16,885,608	74,297	253,284	587,450	54.19	915,031
Stambaugh	4,612,274	38,743	92,245	137,446	58.20	268,434
Standish	9,767,631	48,212	158,309	263,854	48.16	470,375
Stanton	4,740,782	26,074	56,892	137,786	46.56	220,752
Stephenson	5,213,813	31,080	13,172	135,559	34.49	179,810
Sterling Heights	909,621,200	4,775,511	11,524,901	38,856,859	60.64	55,157,271
Sturgis	69,489,586	330,770	729,641	2,259,037	47.77	3,319,448
Swartz Creek	52,683,764	312,322	819,765	1,881,338	57.20	3,013,426
Sylvan Lake	15,886,700	87,059	203,351	601,282	56.13	891,692
Tawas City	13,176,821	62,313	198,970	299,774	42.58	561,057
Taylor	420,445,463	3,287,884	9,481,145	16,170,333	68.83	28,939,361
Tecumseh	42,556,300	244,699	553,232	1,452,873	52.89	2,250,803
Three Rivers	43,992,800	209,406	621,266	1,494,391	52.85	2,325,063
Traverse City	137,335,798	906,366	1,906,801	4,170,066	50.85	6,983,232
Trenton	388,206,627	3,035,776	6,095,742	16,366,831	65.68	25,498,348
Troy	785,835,801	4,306,380	10,530,200	30,901,949	58.20	45,738,529
Utica	31,897,395	167,461	574,312	1,386,739	66.73	2,128,513
Vassar	15,930,405	79,266	296,729	422,793	50.14	798,788
Wakefield	6,453,825	52,082	118,363	225,884	61.41	396,329
Walker	122,365,360	587,354	703,601	4,200,927	44.88	5,491,881
Walled Lake	33,167,250	181,757	742,946	1,229,842	64.96	2,154,545
Warren	1,432,797,416	7,522,186	17,729,589	60,833,497	60.08	86,085,273
Watervliet	11,330,435	62,601	181,287	346,995	52.15	590,882
Wayland	11,080,451	74,239	204,998	356,125	57.34	635,362

TABLE X-24. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1978 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total Rate[a]	Total Taxes
Wayne	$167,432,816	$ 1,309,325	$ 3,129,674	$ 7,240,479	69.76	$11,679,477
West Branch	11,665,500	60,661	226,311	342,732	53.98	629,704
Westland	415,155,708	3,246,518	8,321,107	18,113,963	71.50	29,681,588
White Cloud	4,999,681	29,248	77,495	146,491	50.65	253,234
Whitehall	22,872,317	150,957	297,340	799,616	54.56	1,247,914
Whittemore	2,089,236	9,880	16,714	53,276	38.23	79,870
Williamston	14,506,052	115,178	278,371	556,452	65.49	950,001
Wixom	90,991,809	498,635	934,061	3,366,555	52.74	4,799,251
Woodhaven	135,240,748	1,057,583	1,762,617	5,584,344	62.15	8,404,544
Wyandotte	234,339,188	1,832,532	4,590,713	10,437,467	71.95	16,860,713
Wyoming	416,747,750	2,000,389	3,959,104	14,651,380	49.46	20,610,872
Yale	9,223,369	51,559	101,457	262,359	45.03	415,374
Ypsilanti	121,064,400	782,693	3,106,513	5,076,240	74.06	8,965,446
Zeeland	41,167,720	182,785	485,783	1,357,464	49.21	2,026,032
Zilwaukee	12,438,985	69,658	218,802	453,534	59.65	741,994
TOTAL	34,863,658,871	224,520,296	620,978,965	1,321,632,375	62.16	2,167,131,635

SOURCE: Michigan State Tax Commission, special release.

a. Taxes per $1,000 of state equalized valuation.

TABLE X-25. HISTORY OF OUTSTANDING DEBT OF LOCAL GOVERNMENTS IN MICHIGAN: 30 JUNE 1943 THROUGH 30 JUNE 1979

(In thousands of dollars)

June 30	Approved during year	Gross debt outstanding	Increase (+) or decrease (-) over preceding year
1943	$ --	$ 524,938	$ -50,238
1944	10,120	487,721	-37,217
1945	11,160	458,492	-29,228
1946	16,151	436,144	-22,348
1947	67,979	440,662	+4,518
1948	36,722	441,897	+1,234
1949	84,573	467,039	+25,142
1950	126,226	542,510	+75,471
1951	125,461	581,894	+39,383
1952	202,511	646,012	+64,117
1953	214,838	702,292	+56,279
1954	184,185	820,966	+118,674
1955	179,566	908,472	+87,506
1956	290,451	1,052,676	+144,203
1957	293,913	1,196,846	+144,170
1958	255,835	1,317,220	+120,373
1959	410,698	1,520,304	+203,084
1960	421,284	1,662,906	+142,602
1961	398,507	1,787,002	+124,096
1962	521,376	1,993,658	+206,656
1963	291,348	2,099,554	+105,896
1964	379,377	2,311,606	+212,051
1965	391,750	2,502,027	+190,421
1966	526,918	2,783,167	+287,140
1967	635,432	3,168,082	+384,914
1968	680,783	3,671,601	+503,519
1969	748,673	3,986,009	+314,408
1970	844,074	4,494,679	+508,669
1971	1,268,020	5,104,755	+610,076
1972	1,207,075	5,541,270	+436,514
1973	993,239	5,842,602	+301,331
1974	1,129,697	6,376,186	+533,584
1975	1,368,630	6,844,035	+467,848
1976	1,679,225	7,467,859	+623,824
1977	1,006,121	7,841,682	+373,823
1978	1,749,929	8,506,599	+664,917
1979	2,249,641	9,776,082	+1,269,483

SOURCE: Michigan Department of Treasury, special release.

TABLE X-26. BONDS AND NOTES ISSUED AND REDEEMED BY LOCAL GOVERNMENTS IN MICHIGAN: 1 JULY 1978 THROUGH 30 JUNE 1979

(In thousands of dollars)

	Gross outstanding 6-30-78	Issued	Redeemed	Gross outstanding 6-30-79
General obligation	3,439,156	450,877	206,054	3,683,979
Act 342 of 1939	410,590	70,538	12,811	468,317
Act 185 of 1957	561,888	111,316	17,627	655,577
M.V.H.F. bonds (Act 175)	65,760	4,956	7,190	63,525
M.V.H.F. bonds (Act 51)	79,558	4,550	5,758	78,350
M.V.H.F. notes (Act 143)	23,356	4,015	4,453	22,918
Notes	270,110	409,913	339,449	340,574
Special assessment bonds	100,804	20,655	16,430	105,028
Drain bonds (Act 40)	323,761	82,390	16,896	389,255
Subtotal	5,274,982	1,159,209	626,669	5,807,522
Rev. bonds	2,297,689	702,112	58,997	2,940,804
Rev. notes	72,766	53,000	396	125,370
Ind. rev. bonds	861,162	67,253	26,030	902,385
TOTAL	8,506,599	1,981,574	712,091	9,776,082

SOURCE: Michigan Department of Treasury, special release.

TABLE X-27. TOTAL OUTSTANDING DEBT OF LOCAL GOVERNMENTS IN MICHIGAN: 30 JUNE 1979

(In thousands of dollars)

	Counties	Cities	Villages	Townships	Schools and community colleges	Authorities, districts, and so forth	Total
Gen. obligation bonds	70,345	739,024	12,486	24,344	2,837,779	--	3,683,978
Act 342 of 1939	468,317	--	--	--	--	--	468,317
Act 185 of 1957	655,577	--	--	--	--	--	655,577
M.V.H.F. bonds (Act 175)	--	61,700	1,825	--	--	--	63,525
M.V.H.F. bonds (Act 51)	78,350	--	--	--	--	--	78,350
M.V.H.F. notes (Act 143)	22,917	--	--	--	--	--	22,917
Notes	287,850	35,111	12	200	17,399	--	340,574
Special assessment bonds	697	81,056	1,213	22,062	--	--	105,028
Drain bonds (Act 40)	389,255	--	--	--	--	--	389,255
Subtotal	1,973,309	916,891	15,537	46,606	2,855,178	--	5,807,522
Rev. bonds	127,318	610,228	24,594	28,566	906	2,149,190	2,940,804
Rev. notes	--	180	190	--	--	125,000	125,370
Ind. rev. bonds	290,742	390,678	29,980	190,985	--	--	902,385
TOTAL	2,391,369	1,917,978	70,302	266,157	2,856,084	2,274,190	9,776,082

SOURCE: Michigan Department of Treasury, special release.

TABLE X-28. RECEIPTS AND PAYMENTS OF EMPLOYEE RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS, FISCAL YEAR: 1978

(Thousands of dollars)

System	Receipts					Payments	
	Contributions			Earnings on investments	Total[a]	Benefits	Other
	Employee	State	Local gov't.				
State administered							
General							
State employees	897	79,826	--	122,170	202,893	33,443	2,138
Municipal employees	10,297	--	22,309	14,339	46,945	10,439	3,118
State police	2	6,943	--	3,926	10,871	4,135	19
Mich. pub. school employees	30,423	92,892	84,219	140,268	347,802	130,327	12,719
Detroit pub. school employees	4,178	27,000	11,685	22,662	65,525	37,911	2,423
City administered							
General							
Ann Arbor	739	87	2,577	1,823	5,226	1,202	114
Dearborn	501	--	2,029	948	3,478	1,024	99
Detroit	11,772	--	63,845	28,918	104,535	37,479	11,447
Police and firemen	8,156	--	71,973	24,722	104,851	53,148	4,420
Flint	3,970	--	9,094	7,804	20,868	4,935	559
Grand Rapids	470	--	2,088	1,424	3,982	960	115
Police and firemen	584	--	2,763	1,741	5,088	1,053	47
Kalamazoo	740	--	1,587	1,307	3,634	791	211
Lansing	443	--	1,198	883	2,524	543	130
Police and firemen	511	--	2,000	1,622	4,133	1,003	32
Light and water	--	--	1,890	1,358	3,248	875	--
Livonia	441	--	1,278	1,005	2,724	264	49
Warren	516	--	1,232	669	2,417	285	60
Wyandotte	384	--	1,446	960	2,790	734	297
Other locally administered							
General							
Bay County	335	--	1,042	535	1,912	260	51
Berrien County	364	--	671	302	1,337	148	34
Genesee County	1,487	--	2,536	1,450	5,473	754	500
Jackson County	382	--	956	590	1,928	427	133

TABLE X-29. NUMBER OF FEDERAL CIVILIAN EMPLOYEES IN MICHIGAN, BY AGENCY, 31 DECEMBER: 1951-1978

Year	Army, Navy, Air Force, and other	U.S. Postal Service[a]	Veterans Administration	Other agencies[a]	All agencies[a]
1951	15,168	17,121	4,309	7,645	44,243
1952	17,687	18,016	4,141	7,476	47,320
1953	12,040	17,336	4,058	6,978	40,412
1954	9,877	17,298	4,410	6,668	38,253
1955	9,832	17,431	4,447	7,352	39,062
1956	9,665	17,323	4,577	7,651	39,216
1957	9,808	17,383	4,560	8,026	40,777
1958	9,605	18,426	4,504	8,453	40,988
1959	9,645	19,153	4,574	8,401	41,773
1960	9,638	19,438	4,598	8,541	42,215
1961	11,249	20,245	4,674	8,743	44,911
1962	10,880	21,047	4,795	8,621	45,343
1963	11,803	20,426	4,894	9,461	46,584
1964	11,689	19,603	4,927	8,386	44,605
1965	11,614	20,632	4,824	8,710	45,780
1966	12,713	24,189	4,931	9,035	50,868
1967	13,946	25,770	4,962	11,060	55,738
1967	13,302	26,174	4,910	9,140	53,526
1968	13,067	26,646	4,818	9,131	53,662
1969	13,532	26,823	4,659	9,086	54,100
1970	12,015	26,982	4,636	9,803[b]	53,436
1971	12,127	26,163	4,915	10,117[b]	53,322
1972	12,012	24,877	4,998	10,406[b]	52,293
1973	12,061	25,903	4,974	10,705	53,643
1974	12,512	24,889	5,222	11,390	54,013
1975	12,672	24,420	5,542	11,969	54,603
1976	12,857	23,522	5,694	11,804	53,877
1977	12,231	24,107	6,021	11,980	54,339
1978	12,114	23,226	5,938	12,072	53,350

SOURCE: U.S. Civil Service Commission, Annual Report, and special release.

NOTE: Data for 1951-1967 refer to 30 June.
a. Distribution by state is partially estimated.
b. Excludes agencies with less than 2,500 employees.

TABLE X-31. FEDERAL CIVILIAN EMPLOYMENT IN MICHIGAN, BY COUNTY: 31 DECEMBER 1977 AND 1978

County	1977	1978	County	1977	1978
Alcona	50	50	Lake	37	37
Alger	63	63	Lapeer	112	108
Allegan	166	164	Leelanau	69	63
Alpena	145	141	Lenawee	206	202
Antrim	47	52	Livingston	134	134
Arenac	54	51	Luce	15	15
Baraga	24	23	Mackinac	61	66
Barry	76	80	Macomb	7,973	8,130
Bay	267	260	Manistee	89	88
Benzie	69	72	Marquette	848	810
Berrien	447	441	Mason	85	88
Branch	80	88	Mecosta	86	85
Calhoun	3,929	3,818	Menominee	71	70
Cass	89	91	Midland	136	127
Charlevoix	48	51	Missaukee	32	32
Cheboygan	51	52	Monroe	212	202
Chippewa	692	538	Montcalm	132	126
Clare	48	48	Montmorency	16	16
Clinton	922	905	Muskegon	431	435
Crawford	123	124	Newaygo	75	78
Delta	215	231	Oakland	3,157	2,926
Dickinson	559	530	Oceana	53	53
Eaton	199	202	Ogemaw	41	40
Emmet	105	105	Ontonagon	60	67
Genesee	1,410	1,363	Osceola	50	51
Gladwin	35	34	Oscoda	29	35
Gogebic	150	163	Otsego	117	111
Grand Traverse	284	268	Ottawa	332	329
Gratiot	116	116	Presque Isle	44	42
Hillsdale	105	103	Roscommon	34	32
Houghton	185	185	Saginaw	1,326	1,224
Huron	137	134	St. Clair	101	101
Ingham	1,143	1,143	St. Joseph	54	58
Ionia	120	121	Sanilac	138	134
Iosco	547	511	Schoolcraft	398	392
Iron	53	61	Shiawassee	110	112
Isabella	125	130	Tuscola	134	132
Jackson	465	450	Van Buren	126	123
Kalamazoo	952	935	Washtenaw	2,941	3,019
Kalkaska	17	17	Wayne	17,820	17,389
Kent	1,952	1,940	Wexford	136	146
Keweenaw	54	68	Michigan	54,339	53,350

SOURCE: U.S. Civil Service Commission, special release.

a. Includes 12 unspecified.

TABLE X-32. MICHIGAN CLASSIFIED CIVIL SERVICE EMPLOYMENT, BY DEPARTMENT: APRIL 1980

Department	Employment
Executive office	64
Legislative	159
Judiciary	0
Management and budget	1,800
Attorney general	439
Civil rights	297
Civil service	510
State	2,690
Treasury	1,864
Education	2,424
Public health	1,981
Mental health	17,256
Social services	15,039
Corrections	5,041
Military affairs	329
State police	3,161
Department of transportation	4,516
Commerce	1,945
Labor	6,470
Licensing and regulation	262
Natural resources	3,295
Agriculture	704
TOTAL	70,246

SOURCE: Michigan Department of Civil Service, special release.

TABLE X-33. MICHIGAN CLASSIFIED CIVIL SERVICE EMPLOYMENT BY COUNTY IN WHICH THE JOBS ARE LOCATED, AVERAGE FOR FISCAL YEAR: 1978

County	1978	County	1978
Alcona	31	Leelanau	21
Alger	55	Lenawee	347
Allegan	509	Livingston	1,035
Alpena	230	Luce	796
Antrim	44	Mackinac	224
Arenac	35	Macomb	1,156
Baraga	114	Manistee	83
Barry	108	Marquette	818
Bay	320	Mason	85
Benzie	47	Mecosta	71
Berrien	558	Menominee	68
Branch	1,189	Midland	135
Calhoun	433	Missaukee	24
Cass	131	Monroe	229
Charlevoix	65	Montcalm	79
Cheboygan	105	Montmorency	55
Chippewa	418	Muskegon	1,157
Clare	70	Newaygo	85
Clinton	88	Oakland	2,848
Crawford	148	Oceana	69
Delta	313	Ogemaw	81
Dickinson	81	Ontonagon	51
Eaton	2,288	Osceola	80
Emmet	127	Oscoda	59
Genesee	1,230	Otsego	358
Gladwin	55	Ottawa	239
Gogebic	93	Presque Isle	41
Grand Traverse	1,114	Roscommon	408
Gratiot	84	Saginaw	719
Hillsdale	68	Sanilac	80
Houghton	134	Schoolcraft	88
Huron	86	Shiawassee	122
Ingham	15,027	St. Clair	304
Ionia	1,216	St. Joseph	127
Iosco	54	Tuscola	986
Iron	114	Van Buren	234
Isabella	987	Washtenaw	2,302
Jackson	1,918	Wayne	13,506
Kalamazoo	1,669	Wexford	219
Kalkaska	44	Statewide, out-of-state, and unallocated	2,592
Kent	1,549		
Keweenaw	20		
Lake	41		
Lapeer	1,555	Total	66,546

SOURCE: Michigan Department of Civil Service, special release.

TABLE X-34. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1978

Type of government	Number of employees			October payroll ($000)	Average earnings[a]
	Full-time only	Full-time equivalent	Total		
Federal[b]	n.a.	n.a.	53,350	n.a.	n.a.
State	106,151	119,417	152,172	164,366	1,375
Local	294,338	328,477	406,818	423,470	1,349
Counties	43,902	46,446	49,628	50,435	1,104
Municipalities	69,015	71,883	85,975	99,108	1,386
Townships	4,137	6,433	25,024	6,768	1,188
School dist	172,183	197,274	239,690	260,503	1,406
Special dist	5,101	6,441	6,321	6,655	1,153
TOTAL STATE AND LOCAL	400,489	447,894	558,990	587,836	1,356
Counties					
Bay	n.a.	878	963	879	924
Berrien	n.a.	1,130	1,268	1,189	843
Calhoun	n.a.	670	673	673	1,005
Genesee	n.a.	2,005	2,057	2,377	1,186
Ingham	n.a.	2,258	2,505	2,206	979
Jackson	n.a.	867	925	846	979
Kalamazoo	n.a.	838	896	882	1,054
Kent	n.a.	2,015	2,259	2,216	1,101
Macomb	n.a.	2,362	2,781	2,803	1,200
Monroe	n.a.	798	851	925	1,163
Muskegon	n.a.	1,120	1,202	1,024	915
Oakland	n.a.	3,716	3,909	5,019	1,359
Ottawa	n.a.	717	717	666	928
Saginaw	n.a.	1,435	1,504	1,457	1,021
St. Clair	n.a.	628	701	773	1,254
Washtenaw	n.a.	1,291	1,510	1,760	1,364
Wayne	n.a.	8,299	8,485	12,324	1,486
Cities					
Ann Arbor	n.a.	977	1,100	1,491	1,533
Dearborn	n.a.	1,389	1,694	1,868	1,361
Dearborn Heights	n.a.	418	446	603	1,444
Detroit	n.a.	23,955	24,141	40,414	1,688
East Lansing	n.a.	357	404	469	1,316
Farmington Hills	n.a.	231	321	340	1,474
Flint	n.a.	4,030	4,377	5,241	1,308

TABLE X-34. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1978 (cont.)

Type of government	Number of employees			October payroll ($000)	Average earnings[a]
	Full-time only	Full-time equivalent	Total		
Cities (cont.)					
Grand Rapids	n.a.	2,155	2,458	2,638	1,232
Kalamazoo	n.a.	1,104	1,187	1,400	1,272
Lansing	n.a.	2,570	2,629	3,453	1,347
Livonia	n.a.	754	939	1,134	1,553
Pontiac	n.a.	2,574	2,662	3,297	1,279
Roseville	n.a.	323	346	483	1,499
Royal Oak	n.a.	518	609	774	1,502
Saginaw	n.a.	1,112	1,185	1,381	1,246
St. Clair Shores	n.a.	473	544	559	1,190
Southfield	n.a.	675	836	1,021	1,543
Sterling Heights	n.a.	571	589	805	1,422
Taylor	n.a.	427	480	565	1,322
Troy	n.a.	378	466	611	1,630
Warren	n.a.	1,130	1,313	1,853	1,649
Westland	n.a.	400	467	582	1,452
Wyoming	n.a.	398	537	500	1,257

SOURCE: Bureau of the Census, Public Employment in 1978, Series GE 78, no. 1 (Washington, D.C.: 1979), Tables 6 and 8; and Bureau of the Census, County Government Employment in 1978, Series GE 78, no. 4 (Washington, D.C.: 1979), Table 4; and Bureau of the Census, City Employment in 1978, Series GE 78, no. 2 (Washington, D.C.: 1979), Table 4.

NOTE: Figures include faculty and staff of state and local institutions of higher education. Average earnings by counties and cities are for employees other than teachers.

a. Full-time employees only.
b. Federal civilian employees as of December 1978.
n.a.: not available.

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977

County	Year	Full-time equivalent							Total employment	
		Education					General control	Total	Full-time	Total
		Teachers	Total	Highways	Hospital	Police				
Alcona	1972	93	145	49	0	13	28	257	214	436
	1977	87	131	50	0	17	22	257	218	392
Alger	1972	115	166	34	0	13	22	282	242	457
	1977	140	205	23	0	13	22	314	281	436
Allegan	1972	923	1,330	120	0	51	111	1,814	1,589	2,714
	1977	1,086	1,596	123	62	92	95	2,230	1,973	2,844
Alpena	1972	502	717	67	372	31	38	1,388	1,264	1,800
	1977	477	748	103	406	49	61	1,542	1,424	2,752
Antrim	1972	205	291	62	0	15	32	439	366	752
	1977	255	365	56	0	25	61	697	650	834
Arenac	1972	153	263	59	0	8	19	376	336	614
	1977	216	323	35	0	13	23	431	375	562
Baraga	1972	107	164	47	125	10	22	404	340	606
	1977	115	180	62	125	11	31	436	392	614
Barry	1972	375	592	91	0	35	56	854	718	1,390
	1977	472	756	101	0	55	79	1,124	1,022	1,552
Bay	1972	1,437	2,388	151	0	133	122	3,408	3,110	4,322
	1977	1,689	2,826	136	0	186	132	4,389	4,085	5,509
Benzie	1972	149	206	46	0	11	23	334	283	521
	1977	150	212	47	0	10	39	336	287	460
Berrien	1972	2,399	3,685	227	360	259	265	5,467	4,943	7,117
	1977	2,538	3,784	216	368	270	304	5,782	5,356	7,359
Branch	1972	454	716	98	346	50	39	1,442	1,303	1,861
	1977	480	751	91	416	55	87	1,765	1,594	2,203
Calhoun	1972	1,880	2,841	192	190	206	206	4,358	3,969	5,851
	1977	2,032	2,994	184	239	282	279	4,915	4,491	6,418
Cass	1972	492	778	86	65	58	69	1,164	1,009	1,738
	1977	640	959	109	0	53	83	1,348	1,175	1,851
Charlevoix	1972	236	354	62	0	27	37	567	491	884
	1977	224	325	84	0	30	55	698	656	905
Cheboygan	1972	204	302	73	0	27	29	497	470	680
	1977	219	328	70	0	39	51	564	537	656

TABLE X-28. RECEIPTS AND PAYMENTS OF EMPLOYEE RETIREMENT SYSTEMS IN MICHIGAN AND THE UNITED STATES, STATE AND LOCALLY ADMINISTERED SYSTEMS, FISCAL YEAR: 1978 (cont.)

(Thousands of dollars)

System	Receipts					Payments	
	Contributions			Earnings on investments	Total[a]	Benefits	Other
	Employee	State	Local gov't.				
	Other locally administered (cont.)						
General (cont.)							
Kalamazoo County	441	--	728	389	1,558	286	112
Kent County	724	--	1,850	1,092	3,666	473	177
Macomb County	922	--	2,400	1,905	5,227	669	323
Monroe County	252	--	334	287	873	57	89
Oakland County	308	--	5,350	2,882	8,540	1,318	258
St. Clair County	461	--	1,044	555	2,060	443	101
Washtenaw County	606	--	885	602	2,093	216	267
Wayne County	8,741	--	27,360	14,672	50,773	19,296	736
Michigan							
State and locally administered							
TOTAL	120,883	170,430	62,045	150,500	503,858	174,095	26,275
United States							
State administered	4,619,319	5,704,451	4,263,568	6,868,409	21,455,747	6,821,114	990,157
Locally administered	1,068,316	123,050	3,529,614	1,807,696	6,528,676	2,728,275	234,849
TOTAL	5,687,635	5,827,501	7,793,182	8,676,105	27,984,423	9,549,389	1,225,007

SOURCE: Bureau of the Census, 1978 Census of Governments, Employee-Retirement Systems of State and Local Governments, vol. 6, Topical Studies, no. 1 (Washington, D.C.: 1979), Tables 7 and 8.

a. Items might not add up to totals because of minor omission.

TABLE X-30. DEPARTMENT OF DEFENSE MILITARY AND CIVILIAN PERSONNEL WORKING IN MICHIGAN, BY INSTALLATION: 30 SEPTEMBER 1979

	Military personnel				Civilian personnel				
Installation	Army	Navy	Air Force	Total	Army	Navy	Air Force	Other defense activities	Total
Battle Creek	10	15	--	25	14	--	576	1,137	1,727
Detroit	101	479	24	604	469	10	--	264	743
Grand Rapids	12	16	5	33	15	--	1	81	97
K.I. Sawyer AFB	--	--	3,724	3,724	4	--	413	6	423
Lansing	44	94	3	141	245	--	10	4	259
Sault Ste. Marie	2	--	74	76	255	--	14	--	269
Selfridge AFB	146	231	89	466	357	--	1,307	--	1,664
Sterling Heights	6	--	--	6	1,305	--	--	40	1,345
Warren (including Detroit Arsenal	300	--	2	302	3,861	--	--	11	3,872
Wurtsmith AFB	--	--	2,761	2,761	1	--	376	5	382
Other	276	68	361	705	689	68	74	184	1,015
TOTAL	897	903	7,043	8,843	7,215	78	2,771	1,732	11,796

SOURCE: U.S. Department of Defense, Distribution of Personnel by State-by Selected Location as of 30 September, 1979 (Washington, D.C.: 1980), p. 39.

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977 (cont.)

County	Year	Full-time equivalent							Total employment	
		Education					General			
		Teachers	Total	Highways	Hospital	Police	control	Total	Full-time	Total
Chippewa	1972	475	741	104	313	43	27	1,366	1,269	1,734
	1977	482	744	86	313	44	45	1,375	1,271	1,695
Clare	1972	272	439	65	0	21	31	620	549	932
	1977	415	674	62	0	23	44	870	784	1,079
Clinton	1972	649	1,011	73	0	39	70	1,270	1,080	1,794
	1977	651	965	70	0	52	62	1,315	1,192	1,709
Crawford	1972	78	134	44	0	17	24	252	231	300
	1977	98	142	22	0	9	23	236	198	324
Delta	1972	528	813	96	0	44	49	1,155	1,090	1,515
	1977	605	928	117	0	58	50	1,334	1,245	1,694
Dickinson	1972	286	400	100	212	37	37	906	835	1,168
	1977	325	444	87	314	39	29	1,061	991	1,301
Eaton	1972	888	1,323	76	213	100	97	2,056	1,791	2,798
	1977	1,061	1,593	86	0	131	120	2,260	2,069	2,833
Emmet	1972	285	423	86	93	34	45	785	701	1,094
	1977	327	487	71	96	39	46	847	781	1,106
Genesee	1972	6,089	9,086	467	2,194	640	391	14,679	13,508	17,752
	1977	6,370	10,204	440	2,163	785	666	16,814	15,584	20,789
Gladwin	1972	161	270	51	0	15	28	407	348	575
	1977	222	336	42	0	28	33	488	451	648
Gogebic	1972	255	384	109	116	36	36	837	811	972
	1977	278	437	106	108	38	69	909	834	1,081
Grand Traverse	1972	591	936	80	0	56	46	1,388	1,234	1,863
	1977	593	931	22	0	83	77	1,455	1,293	1,852
Gratiot	1972	555	829	90	0	51	40	1,157	1,630	1,883
	1977	604	941	90	0	66	122	1,409	1,291	1,767
Hillsdale	1972	435	655	85	188	33	64	1,301	1,049	1,125
	1977	490	729	56	208	55	44	1,221	1,109	1,524
Houghton	1972	323	490	126	0	44	60	1,017	888	1,501
	1977	383	529	143	0	41	46	903	833	1,216
Huron	1972	401	575	117	0	38	61	951	842	1,470
	1977	450	657	102	105	50	62	1,059	962	1,416

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977 (cont.)

County	Year	Full-time equivalent							Total employment	
		Education		Highways	Hospital	Police	General control	Total	Full-time	Total
		Teachers	Total							
Ingham	1972	3,452	5,303	210	683	497	364	9,743	8,921	11,281
	1977	4,272	6,569	284	902	576	559	11,802	10,935	14,303
Ionia	1972	615	884	123	123	56	53	1,396	1,218	1,929
	1977	803	1,116	95	144	53	69	1,701	1,561	2,195
Iosco	1972	370	604	50	0	32	25	781	669	1,047
	1977	488	744	56	65	35	50	1,117	1,030	1,368
Iron	1972	159	249	89	99	24	33	625	567	825
	1977	167	240	86	146	25	25	592	517	824
Isabella	1972	383	590	85	0	37	37	899	753	1,314
	1977	446	677	88	0	50	72	1,026	912	1,359
Jackson	1972	1,805	3,212	144	113	175	206	4,494	4,038	5,513
	1977	1,889	2,942	185	0	220	201	4,587	4,135	6,264
Kalamazoo	1972	2,436	3,764	303	0	343	277	5,760	5,293	7,306
	1977	2,629	4,005	268	0	456	316	6,330	5,682	8,462
Kalkaska	1972	75	129	38	0	8	15	207	174	334
	1977	140	226	38	35	16	38	371	358	440
Kent	1972	4,914	7,179	250	554	638	453	11,637	10,741	14,487
	1977	7,791	10,976	526	572	994	528	16,065	14,818	20,248
Keweenaw	1972	14	25	49	0	4	11	105	97	170
	1977	1	1	34	0	5	7	62	49	107
Lake	1972	67	115	46	0	15	13	212	174	335
	1977	88	134	48	0	12	34	275	238	347
Lapeer	1972	581	841	71	550	47	56	1,711	1,542	2,324
	1977	781	1,204	86	422	94	116	2,312	2,008	2,988
Leelanau	1972	120	184	17	0	10	37	273	240	517
	1977	138	200	31	0	13	26	314	279	415
Lenawee	1972	1,052	1,573	150	197	102	71	2,420	2,147	3,223
	1977	1,132	1,732	143	366	134	122	3,144	2,807	3,854
Livingston	1972	820	1,135	79	0	80	90	1,567	1,396	2,203
	1977	1,027	1,655	74	0	104	107	2,146	1,903	3,029
Luce	1972	81	118	39	70	12	14	273	253	328
	1977	103	134	35	80	8	16	356	331	424

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977 (cont.)

County	Year	Full-time equivalent							Total employment	
		Education					General control	Total	Full-time	Total
		Teachers	Total	Highways	Hospital	Police				
Mackinac	1972	129	204	55	24	17	52	397	366	597
	1977	470	682	51	26	13	35	853	777	1,096
Macomb	1972	8,973	12,818	586	0	1,019	611	17,831	16,626	21,285
	1977	9,174	13,626	548	0	1,191	794	19,755	18,472	23,961
Manistee	1972	232	310	75	185	31	30	718	646	1,083
	1977	252	344	64	199	38	38	791	698	992
Marquette	1972	824	1,201	157	120	78	76	1,977	1,826	2,639
	1977	956	1,348	177	108	99	120	2,331	2,133	3,100
Mason	1972	324	486	90	0	43	54	777	690	1,086
	1977	367	579	68	0	38	53	843	770	1,142
Mecosta	1972	303	451	65	220	31	56	916	821	1,273
	1977	349	508	79	203	46	62	1,055	996	1,227
Menominee	1972	281	383	116	0	27	35	664	621	930
	1977	310	444	79	196	39	54	936	848	1,152
Midland	1972	933	1,291	114	0	78	93	1,909	1,743	2,459
	1977	971	1,435	191	0	87	125	2,288	2,127	2,875
Missaukee	1972	80	110	61	0	5	33	246	232	446
	1977	112	169	20	0	8	15	238	213	349
Monroe	1972	1,529	2,328	186	0	131	163	3,302	2,841	4,262
	1977	1,710	2,620	174	0	202	202	3,904	3,689	4,969
Montcalm	1972	698	1,052	110	0	39	46	1,428	1,254	2,073
	1977	847	1,277	66	0	56	33	1,589	1,486	1,957
Montmorency	1972	74	106	31	0	11	13	188	178	253
	1977	76	116	35	0	17	36	224	200	286
Muskegon	1972	2,227	3,491	217	85	270	249	5,097	4,771	6,278
	1977	2,484	4,041	228	69	292	271	6,021	5,537	7,395
Newaygo	1972	390	599	59	0	26	33	785	667	1,239
	1977	479	690	74	0	33	84	1,081	983	1,333
Oakland	1972	12,551	19,232	949	1,338	1,538	1,373	28,479	25,984	34,309
	1977	14,202	21,831	995	1,186	1,861	1,403	33,128	30,980	40,405
Oceana	1972	227	337	70	60	26	33	577	490	942
	1977	278	396	60	100	29	19	665	588	848

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977 (cont.)

County	Year	Full-time equivalent							Total employment	
		Education					General control	Total	Full-time	Total
		Teachers	Total	Highways	Hospital	Police				
Ogemaw	1972	132	195	45	117	16	21	452	392	693
	1977	151	218	42	215	22	47	589	533	774
Ontonagon	1972	171	254	82	36	19	26	447	406	704
	1977	164	241	70	81	11	29	516	475	639
Osceola	1972	244	489	67	96	17	29	738	650	972
	1977	325	478	58	175	22	28	826	695	1,054
Oscoda	1972	65	110	35	0	11	8	176	160	240
	1977	76	119	31	0	15	17	235	220	348
Otsego	1972	150	237	55	0	15	26	358	328	473
	1977	217	317	13	15	22	38	472	430	653
Ottawa	1972	1,493	2,151	224	570	140	117	3,808	3,306	5,207
	1977	1,905	2,644	221	765	184	156	4,737	4,332	15,365
Presque Isle	1972	155	228	60	132	18	25	524	463	721
	1977	181	266	52	106	20	28	537	478	376
Roscommon	1972	153	261	46	0	15	30	401	322	771
	1977	240	390	55	0	18	35	554	483	824
Saginaw	1972	2,750	4,293	184	348	315	273	6,476	5,948	7,500
	1977	3,648	5,213	217	421	420	299	8,232	7,642	10,056
St. Clair	1972	1,685	2,453	256	110	149	186	3,644	3,214	4,905
	1977	1,920	2,793	275	243	167	202	4,538	4,130	5,834
St. Joseph	1972	710	1,072	90	279	59	86	1,766	1,594	2,429
	1977	817	1,224	77	347	76	119	2,080	1,872	2,712
Sanilac	1972	488	671	112	0	39	55	1,081	918	1,749
	1977	590	881	90	0	57	51	1,281	1,152	1,648
Schoolcraft	1972	92	130	61	140	8	34	414	376	580
	1977	98	148	59	135	14	80	534	459	606
Shiawassee	1972	880	1,227	113	0	80	101	1,873	1,637	2,558
	1977	967	1,325	107	0	96	131	2,114	1,925	2,878
Tuscola	1972	709	1,030	79	0	46	58	1,362	1,164	2,094
	1977	850	1,188	95	94	63	68	1,752	1,559	2,343
Van Buren	1972	849	1,179	122	297	80	79	1,950	1,790	2,714
	1977	1,052	1,497	105	368	81	79	2,390	2,173	2,984

TABLE X-35. LOCAL GOVERNMENT EMPLOYMENT IN MICHIGAN, BY COUNTY IN WHICH LOCAL GOVERNMENTS ARE LOCATED, BY FUNCTION, OCTOBER: 1972 AND 1977 (cont.)

County	Year	Full-time equivalent							Total employment	
		Education					General			
		Teachers	Total	Highways	Hospital	Police	control	Total	Full-time	Total
Washtenaw	1972	2,784	4,069	283	0	436	412	6,530	5,948	8,045
	1977	3,104	4,687	228	432	441	465	8,452	7,732	10,941
Wayne	1972	27,865	43,614	3,421	8,618	8,469	2,709	90,861	85,981	104,624
	1977	27,653	42,734	2,034	7,533	8,984	3,263	87,946	82,989	105,519
Wexford	1972	253	404	98	0	23	12	647	537	1,016
	1977	318	457	81	0	35	51	746	686	925
Michigan	1972	110,343	167,746	13,680	19,951	17,619	11,216	283,998	261,087	352,984
	1977	118,947	177,879	11,988	20,672	20,333	13,778	316,817	293,429	403,934

SOURCE: Bureau of the Census, Census of Governments, 1972, Vol. 3, Public Employment, No. 2, Compendium of Public Employment (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 16 and 17; and Bureau of the Census, 1977 Census of Governments, Vol. 3, Public Employment, No. 2, Compendium of Public Employment (Washington, D.C.: U.S. Government Printing Office, 1979), Tables 13 and 16.

NOTE: Several local units operate in more than one county. The City of Lansing and the Lansing City School District largely are in Ingham County but extend into Clinton and Eaton counties. Alpena School District operates in Alpena and Presque Isle counties. Bay City School District extends into Saginaw County. Huron Valley School District lies in Oakland and Livingston counties. Lansing Community College District extends into Ingham, Ionia, and Livingston counties. Oakland Community College extends into Oakland, Lapeer, Livingston, and Washtenaw counties. Plymouth Community School District operates in Wayne and Washtenaw counties. Rochester Community School District operates in Oakland and Macomb counties. Warren Consolidated School District operates iin Macomb and Oakland counties. Peoples Community Hospital Authority operates in Wayne and Washtenaw counties. Southeastern Michigan Transportation Authority operates in Wayne, Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw counties. There might be others. In the cases mentioned here, the first county named is the one credited with the statistics for that local unit of government.

TABLE X-36. FULL-TIME EQUIVALENT EMPLOYMENT OF STATE AND LOCAL GOVERNMENTS PER 10,000 POPULATION IN MICHIGAN AND THE UNITED STATES, BY FUNCTION: OCTOBER 1968, 1976, AND 1978

	Michigan			United States		
	1968	1976	1978	1968	1976	1978
Local schools						
Instructional staff	115.5	127.1	135.2	111.7	126.9	128.0
Other	53.0	72.5	69.1	45.5	53.0	55.6
TOTAL	168.5	199.6	204.2	157.1	179.9	183.6
Higher education						
Instructional staff	15.3	19.8	19.9	14.0	19.0	19.4
Other	32.0	36.9	39.9	21.9	30.2	31.4
TOTAL	47.3	56.7	59.8	35.9	49.2	50.8
Other education	1.9	2.7	2.6	2.8	4.0	4.2
Total education	217.6	258.9	266.7	195.8	233.1	238.6
Welfare	6.6	16.4	17.9	11.1	15.9	16.7
Hospitals	42.4	40.6	45.8	39.3	44.7	48.0
Health	4.0	7.1	8.4	5.3	8.8	9.6
Highways	21.2	19.0	17.3	28.1	25.7	25.5
Police	18.5	23.3	26.4	20.5	25.4	26.0
Fire protection	8.5	8.3	8.3	9.0	10.0	9.8
Sewerage	2.2	3.1	3.0	2.8	3.8	4.0
Other sanitation	4.7	3.3	4.3	5.9	5.7	5.7
Parks and recreation	4.9	5.1	6.0	5.6	6.9	7.5
Natural resources	4.1	5.6	6.3	7.5	8.2	8.7
Correction	5.4	7.8	9.5	6.4	9.6	10.2
Local libraries	2.4	2.2	2.1	2.7	3.0	3.0
Employment security administration	3.1	5.4	4.3	3.3	4.8	4.8
Financial administration	9.8	10.2	11.7	10.2	12.1	12.9
General control	9.7	17.0	17.8	11.5	15.9	17.0
Water supply	4.6	4.7	5.3	5.4	5.5	5.6
Other local utilities	5.0	5.2	5.8	7.6	8.8	9.0
State liquor stores	.7	.6	.7	.7	.7	.6
Other	11.4	17.5	19.9	17.1	26.8	28.5
TOTAL	386.9	461.4	487.4	395.9	475.5	491.8

SOURCE: Bureau of the Census, Public Employment in 1978 (Washington, D.C.: 1979), GE-78, no. 1, Table 11; and similar documents for 1976 (Table 11) and 1968 (Table 11).

TABLE X-37. PAY INCREASES IN STATE OF MICHIGAN CLASSIFIED CIVIL SERVICE, FISCAL YEARS: 1950-1981

Fiscal year	Average number employees	Classified payroll	Percentage of general pay increase
1950	22,560	$ 63,934,000	----
1951	21,485	66,285,000	12.2
1952	22,322	77,740,000	12.4
1953	22,635	85,393,000	---
1954	23,754	93,941,000	4.7
1955	24,839	105,142,000	6.3
1956	26,211	115,207,000	7.5
1957	28,614	134,092,000	---
1958	29,487	152,491,000	8.6
1959	29,948	156,082,000	---
1960	29,875	169,362,000	7.4
1961	31,239	177,578,000	---
1962	31,317	184,575,000	3.0
1963	31,557	187,155,000	---
1964	32,047	200,385,000	4.0
1965	33,274	214,415,000	3.3
1966	36,268	239,568,000	3.6
1967	39,932	285,152,000	6.0
1968	41,822	318,805,000	7.0
1969	43,874	361,939,000	6.3
1970	45,742	407,716,000	6.9
1971	47,227	451,827,000	6.4
1972	48,906	508,710,000	8.1
1973	52,673	530,000,000	5.0
1974	53,502	589,774,457	3.8
1975	55,996	671,432,334	2.1
12-19-74	---	---	5.0[a]
1976	57,856	738,527,879	3.0[b]
1977	60,395	841,403,192	8.3[c]
1978	65,190	957,971,306	6.0
1979	67,586	1,034,000,000[d]	6.0[e]
1980	68,500[d]	1,138,000,000[d]	7.0
1981	69,500[d]	1,231,900,000[d]	8.4

SOURCE: Michigan Civil Service Commission, 1978-1979 Annual Report (Lansing: 1980), p. 41.

a. Twenty-seven cents hourly.
b. Cost of living allowance, twenty cents per hour.
c. Includes cost of living allowance.
d. Estimated.
e. Plus seven cents per hour.

TABLE X-38. SALARIES OF ELECTED OFFICIALS OF THE STATE OF MICHIGAN: 1979 AND 1980

Name	1979	1980
Salary		
Governor	$ 61,500	$ 65,000
Lieutenant Governor	42,500	45,000
Justice	56,500	60,500
Legislators	25,500[a]	27,000
Supplemental salaries		
Speaker of the House	9,000	13,000
Senate Majority Leader	8,000	11,000
Senate Minority Leader	4,800	6,600
House Minority Leader	4,800	6,600
Expenses[b]		
Governor	18,000	18,000
Lieutenant Governor	4,950	5,200
Chief Justice	3,000	4,500
Justice, except Chief Justice	1,500	1,500
Legislators	4,900	5,200

SOURCE: Determinations of the State Officers Compensation Commission (Lansing: 1978), p. 6.

a. Commissioner Blackmon dissenting.

b. There also is a mileage allowance for legislators which is the same as for state classified employees. The mileage allowance is in addition to the regular expense allowance for one round trip per week.

TABLE X-39. LISTING OF MICHIGAN COUNTIES ACCORDING TO 1977 RANKING IN AVERAGE OCTOBER EARNINGS OF FULL-TIME NONINSTRUCTIONAL EMPLOYEES IN LOCAL GOVERNMENT: 1972 AND 1977

County	Earnings 1972	Earnings 1977	County	Earnings 1972	Earnings 1977
Wayne	$ 940	$ 1,276	Manistee	$ 722	$ 870
Washtenaw	830	1,168	Lapeer	565	868
Oakland	843	1,149	Clare	643	866
Macomb	881	1,138	Montmorency	711	866
Genesee	843	1,111	Crawford	603	864
St. Clair	757	1,086	Emmet	648	857
Ingham	795	1,073	Barry	696	856
Kalamazoo	748	1,070	Arenac	663	854
Midland	779	1,053	Tuscola	648	853
Calhoun	723	991	Huron	665	852
Grand Traverse	717	987	Gladwin	678	848
Kent	766	987	St. Joseph	634	845
Jackson	721	971	Benzie	628	844
Saginaw	702	967	Gratiot	646	842
Bay	710	965	Houghton	573	835
Alpena	674	962	Mackinac	577	834
Monroe	686	960	Van Buren	629	832
Mason	626	939	Baraga	578	828
Clinton	650	937	Sanilac	665	827
Isabella	705	934	Menominee	620	824
Alcona	550	931	Iron	564	819
Alger	698	928	Charlevoix	618	815
Lenawee	649	928	Oceana	553	812
Eaton	649	925	Newaygo	653	807
Muskegon	704	921	Chippewa	650	805
Marquette	649	920	Oscoda	708	804
Livingston	706	919	Iosco	597	803
Cass	620	913	Mecosta	586	803
Gogebic	668	913	Lake	597	801
Ionia	673	911	Hillsdale	649	799
Ottawa	713	905	Schoolcraft	582	796
Shiawassee	603	903	Ontonagon	714	782
Cheboygan	637	892	Kalkaska	679	768
Montcalm	654	892	Ogemaw	577	767
Dickinson	583	884	Otsego	646	767
Berrien	639	883	Keweenaw	524	750
Branch	627	883	Missaukee	669	749
Presque Isle	563	880	Osceola	626	745
Allegan	664	877	Luce	468	744
Leelanau	647	877	Antrim	693	742
Delta	676	873			
Roscommon	626	873	Michigan, Local[a]	821	1,095
Wexford	610	871	Michigan, State[b]	850	1,207

SOURCE: Bureau of the Census, Census of Governments, 1972, vol. 3, Public Employment, no. 2: Compendium of Public Employment (Washington, D.C.: 1974) Tables 12 and 17; and Bureau of the Census, 1977 Census of Governments, vol. 3, Public Employment, no. 2: Compendium of Public Employment (Washington, D.C.: 1979), Tables 11 and 16.

NOTE: Instructional employees, which are excluded, comprise classroom teachers, professors, lecturers, and so forth, as well as principals, supervisors of instruction, librarians, guidance personnel, teacher aides, library aides, persons engaged in departmental research, teachers at hospitals, and teachers at agricultural experiment stations and farms.

a. Average for local governments in Michigan.

b. Average of State of Michigan noninstructional employees.

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Earnings of federal government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Keweenaw	38.34	1,757	40.19	2,094
Iosco	41.22	44,696	39.00	46,124
Marquette	17.66	60,753	15.77	65,105
Chippewa	29.66	32,346	11.61	11,140
Crawford	7.31	2,036	7.51	2,260
Calhoun	7.57	66,993	7.14	69,531
Alcona	6.25	957	6.21	1,045
Dickinson	7.01	9,145	6.19	9,225
Lake	5.88	664	6.01	731
Leelanau	6.72	1,803	5.58	1,872
Gogebic	4.73	2,500	4.96	2,856
Oscoda	3.90	504	4.39	641
Alger	4.43	1,157	4.33	1,265
Benzie	4.45	1,335	4.29	1,518
Houghton	3.59	3,842	3.58	4,187
Macomb	3.86	148,580	3.57	159,939
Schoolcraft	3.35	979	3.55	1,135
Presque Isle	3.79	1,711	3.49	1,914
Otsego	3.28	2,101	3.08	2,278
Missaukee	3.56	582	3.02	656
Mackinac	2.88	1,156	3.00	1,369
Arenac	2.73	968	2.92	1,052
Iron	2.37	950	2.74	1,191
Delta	2.40	3,658	2.55	4,245
Eaton	2.41	3,913	2.45	4,471
Wexford	2.35	2,384	2.44	2,763
Ontonagon	2.12	1,026	2.40	1,224
Cheboygan	2.47	1,534	2.38	1,713
Washtenaw	2.46	51,416	2.34	57,227
Huron	2.53	3,404	2.27	3,707
Oceana	2.44	1,032	2.24	1,188
Clinton	2.67	2,549	2.22	2,529
Alpena	2.38	3,333	2.21	3,574
Charlevoix	2.29	1,661	2.21	1,878
Antrim	2.20	941	2.19	1,150

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Earnings of federal government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Emmet	2.23	2,172	2.17	2,419
Gladwin	2.15	692	2.11	783
Clare	2.02	946	2.01	1,101
Manistee	1.99	1,650	1.91	1,845
Ogemaw	1.94	763	1.87	849
Osceola	1.80	947	1.85	1,115
Roscommon	1.86	650	1.83	709
Mecosta	1.85	1,618	1.82	1,830
Newaygo	1.79	1,435	1.82	1,684
Grand Traverse	2.02	5,468	1.81	5,862
Montmorency	1.92	315	1.80	365
Mason	1.76	1,637	1.75	1,885
Wayne	1.69	320,534	1.69	356,338
St. Clair	1.65	8,136	1.63	9,149
Menominee	1.63	1,367	1.60	1,554
Baraga	1.65	450	1.58	507
Sanilac	1.54	1,921	1.52	2,232
Tuscola	1.51	2,578	1.51	2,921
Ingham	1.53	34,814	1.50	38,791
Montcalm	1.51	2,468	1.50	2,747
Barry	1.44	1,573	1.48	1,860
Allegan	1.54	3,285	1.44	3,674
Ionia	1.47	2,289	1.44	2,667
Saginaw	1.53	23,696	1.42	24,581
Shiawassee	1.36	2,771	1.42	3,098
Isabella	1.42	2,459	1.40	2,851
Livingston	1.42	2,908	1.37	3,321
Gratiot	1.26	2,214	1.35	2,551
Van Buren	1.42	2,512	1.35	2,835
Hillsdale	1.31	2,016	1.31	2,282
Kalamazoo	1.29	17,283	1.31	19,657
Kent	1.35	36,249	1.30	41,011
Cass	1.28	1,800	1.26	2,088
Lapeer	1.28	2,376	1.23	2,645
Monroe	1.10	4,677	1.13	5,204

TABLE X-40. EARNINGS OF FEDERAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Earnings of federal government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Jackson	1.13	8,930	1.10	9,928
Muskegon	1.08	8,502	1.10	9,769
Kalkaska	1.02	358	1.06	412
Bay	.99	5,294	1.02	5,927
Berrien	.97	8,714	1.00	9,818
Lenawee	.95	3,945	1.00	4,470
Luce	.90	296	.97	346
Ottawa	1.02	6,778	.96	7,610
St. Joseph	.92	2,202	.95	2,563
Branch	.84	1,572	.91	1,926
Oakland	.92	60,424	.85	65,402
Genesee	.77	26,970	.77	29,897
Midland	.50	2,748	.50	3,008
Michigan	1.98	1,099,768	1.88	1,180,782
United States	5.75	67,148,000	5.50	72,532,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1978 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

a. Earnings of federal employees include earnings of military and civilian personnel.

TABLE X-41. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Earnings of state and local government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Luce	67.55	22,124	67.97	24,317
Mecosta	42.47	37,233	40.63	40,875
Mackinac	37.13	14,907	35.81	16,308
Isabella	35.67	61,966	33.37	68,065
Oscoda	33.40	4,317	32.33	4,721
Roscommon	30.30	10,592	30.00	11,600
Lapeer	30.81	57,174	29.29	62,682
Houghton	28.24	30,187	28.26	33,135
Lake	27.69	3,127	28.14	3,421
Iron	27.56	11,034	27.83	12,088
Ingham	25.86	589,996	25.12	647,683
Baraga	25.81	7,044	24.01	7,716
Chippewa	18.69	20,385	23.25	22,308
Gogebic	23.16	12,236	23.24	13,373
Washtenaw	24.46	510,172	22.85	560,237
Tuscola	23.47	39,986	22.77	43,820
Schoolcraft	22.69	6,634	22.73	7,258
Branch	23.27	43,397	22.43	47,592
Alcona	22.06	3,380	21.96	3,695
Clare	21.67	10,152	20.21	11,090
Alger	20.52	5,355	20.06	5,860
Gladwin	20.74	6,680	19.67	7,302
Livingston	20.98	43,085	19.46	47,178
Keweenaw	19.07	874	18.39	958
Ogemaw	19.33	7,591	18.28	8,301
Clinton	19.94	19,005	18.24	20,771
Osceola	18.78	9,872	17.96	10,797
Ionia	19.49	30,267	17.84	33,143
Eaton	17.53	28,473	17.06	31,095
Montmorency	19.18	3,145	16.95	3,443
Marquette	18.16	62,470	16.59	68,502
Oceana	18.64	7,901	16.29	8,637
Alpena	17.11	23,978	16.17	26,227
Arenac	14.97	5,299	16.08	5,790
Crawford	15.84	4,411	16.05	4,829

TABLE X-41. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Earnings of state and local government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Van Buren	17.29	30,618	15.92	33,465
Huron	17.58	23,606	15.85	25,877
Grand Traverse	16.49	44,635	15.12	48,947
Newaygo	15.87	12,734	15.08	13,915
Antrim	16.94	7,236	15.04	7,906
Otsego	15.86	10,149	15.03	11,127
Kalamazoo	15.20	203,109	14.90	222,645
Presque Isle	15.68	7,083	14.90	7,742
Ontonagon	13.80	6,678	14.32	7,302
Shiawassee	14.68	27,883	13.96	30,452
Barry	14.63	15,982	13.95	17,478
Delta	13.44	20,449	13.44	22,363
Menominee	14.09	11,820	13.30	12,920
St. Clair	13.69	67,602	13.15	73,816
Benzie	14.19	4,258	13.13	4,656
Wexford	13.39	13,594	13.13	14,886
Missaukee	15.92	2,603	13.10	2,847
Iosco	13.00	14,098	13.02	15,400
Leelanau	14.56	3,904	12.71	4,265
Allegan	13.63	28,978	12.40	31,679
Monroe	12.37	52,569	12.40	57,411
Kalkaska	12.45	4,363	12.26	4,773
Cheboygan	13.01	8,078	12.25	8,824
Cass	13.23	18,606	12.24	20,339
Mason	12.83	11,944	12.16	13,051
Jackson	12.29	96,793	11.78	105,985
Montcalm	11.95	19,527	11.67	21,329
Lenawee	11.45	47,443	11.65	51,869
Bay	11.27	60,363	11.34	65,935
Sanilac	12.21	15,190	11.29	16,594
Charlevoix	11.94	8,678	11.17	9,486
Manistee	11.69	9,672	10.98	10,573
Emmet	11.44	11,139	10.92	12,177
Dickinson	10.91	14,229	10.44	15,551
Gratiot	10.20	17,893	10.28	19,550

TABLE X-41. EARNINGS OF STATE AND LOCAL GOVERNMENT EMPLOYEES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Earnings of state and local government employees[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
St. Joseph	10.54	25,371	10.26	27,716
Hillsdale	10.16	15,579	9.76	17,020
Muskegon	9.93	78,247	9.62	85,467
Wayne	9.37	1,782,899	9.24	1,947,710
Ottawa	9.25	61,354	8.53	67,281
Berrien	8.56	76,585	8.47	83,688
Calhoun	8.18	72,341	8.11	79,034
Oakland	8.56	564,413	8.05	616,409
Kent	8.45	227,647	7.92	248,728
Macomb	8.15	313,829	7.66	342,487
Saginaw	7.60	117,530	7.43	128,461
Genesee	7.55	263,993	7.42	288,237
Midland	6.07	33,191	6.04	36,232
Michigan	11.41	6,340,934	11.04	6,936,422
United States (millions)	11.40	133,026	10.95	144,364

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1978 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who receive them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

a. Earnings of state and local employees include earnings of military (national guard) and civilian personnel. The latter include faculty and staff of state and local institutions of higher education, public schools, and those who staff police and fire departments (uniformed and otherwise) and other state and local units. Typically, in the records of state and local units themselves, higher education is considered a separate entity, although it receives annual appropriations for operating and capital needs.

XI. OUTDOOR ENVIRONMENT

Michigan's land area is 56,817 square miles, its water area 1,399 square miles. The state's highest elevation, Mount Curwood, in the Porcupine Mountains, is 1,980 feet above sea level. Michigan's lowest elevation of 572 feet is on Lake Erie.

The records of the General Services Administration indicate that the federal government owns or leases around 3,400,000 acres of land in the state. The Michigan Department of Natural Resources and the State Military Board own about 4,400,000 acres.

Land areas of Michigan counties are given in the U.S. Census of Population: 1970. Statistics on gross county areas are available from the Michigan Department of Natural Resources.

Data pertaining to climate at Michigan weather stations are available in Climate of Michigan, by Stations, a publication of the Michigan Weather Service. Separate reports, Local Climatological Data, are available for the stations at Alpena, Detroit, Escanaba, Flint, Grand Rapids, Lansing, Marquette, Muskegon, and Sault Ste. Marie. The Michigan Weather Service also publishes specific reports, such as those on temperature extremes and snowfall.

Air Quality Report is published annually by the Air Pollution Control Division of the Michigan Department of Natural Resources. Other DNR reports include statistics on usage of and facilities at state-owned forests and parks.

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TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978

Station	Temperature (°F)				Precipitation (inches)	
	January		July			
	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
West Upper Division						
Alberta Ford Forestry Center	11.7		64.7		36.77	
Baraga 5 WNW	13.2M		64.0		E35.23	
Beechwood 7 WNW	10.7		64.1		36.03	
Bergland Dam	8.5		63.0		E32.88	- 5.67
Big Bay 1 S	17.5M		66.3		36.10	
Champion Van Riper Park	10.8		62.9		E34.77	.63
Copper Hrbr	17.0M		—		--	
Crystal Falls 6 NE	9.4M		62.8		29.35	.62
Herman	11.3		62.8		44.21	
Houghton FAA AP	14.1		63.7		39.73	
Iron Mountain Water Works	12.5	- 1.9	65.9	- 1.0	31.63	1.45
Ironwood	7.8	- 4.8	63.6	- 3.9	30.87	- 4.70
Ishpeming	12.6	- 2.1	65.0	- .8	37.09	6.11
Kenton U.S. Forest	M		65.9	.4	30.12	- .74
Marquette WSO CI	17.9	- .5	65.1	- 1.2	31.72	.88
Marquette FAA AP	11.5		63.0		38.07	
Mott Island Isle Royal	--		57.9		--	
Ontonagon 6 SE	13.5		65.0		34.03	
Spalding	--		--		30.87	.92
Stambaugh 1 S	9.2	- 4.2	64.0	- 1.6	31.60	.94
Stephenson 6 W	12.4		65.7		32.14	.05
Watersmeet	13.9	- 1.7	65.6	.5	31.14	- 2.96
Division	12.4	- 2.0	64.1	- 1.2	33.8	1.78
East Upper Division						
Chatham Experimental Farm	14.1	- 2.7	63.7	- 1.4	42.37	8.66
Cornell 4 WSW	14.1		63.8		E39.05	
Detour Village 1N	13.8		64.1		28.55	- .48
Dunbar Forest Experiment Station	10.4		62.8		29.49	
Escanaba	15.3	- 2.1	63.7	- 3.0	24.42	- 3.59
Fayette 3 SW	15.9	- 2.9	64.2	- 1.5	26.38	- 3.66
Grand Marais 1 SSE	16.6	- 1.6	62.3	- .4	33.45	2.04
Manistique	14.7	- 3.5	62.4	- 2.7	31.70	1.46
Munising	10.6M	- 7.6	63.8	- 1.1	41.10	7.33
Newberry State Hosp.	13.8	- 2.5	62.7	- 2.1	38.59	7.05
Port Inland					35.00	
Rock					--	
Rudyard 4N	--		--		--	
St. Ignace-Mackinac BR	13.8		65.4		24.05	

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual Total	Precipitation (inches) Departure from normal[a]
East Upper Division (cont.)						
Sault Ste. Marie WSO	10.8	- 3.4	62.4	- 1.4	38.21	6.51
Seney National WLR	13.3	- 3.4	64.8	- 1.2	36.94	4.61
Steuben					--	
Tahquamenon Falls Park	13.6		63.3		E39.04	
Trout Lake	--		62.2M		--	
Whitefish Point	15.5		58.9		E38.07	
Division	13.8	- 3.1	63.2	- 1.5	33.88	1.93
Northwest Lower Division						
Boyne Falls	15.6		68.4		E30.92	
Cadillac	14.7M	- 3.2	63.9	- 2.2	27.91	- 4.48
Charlevoix					27.79	- 3.00
Cross Village	17.5		66.2		27.06	
East Jordon	16.1	- 4.8	67.2	- .6	30.39	- .98
Fife Lake 4 S	16.1		--		--	
Fife Lake 4 SW			M			
Frankfort 2NE	20.3		65.1		33.70	
Houghton Lake 6 WSW	14.4M	- 4.9	64.1	- 3.6	25.27	- 3.35
Kalkaska					26.27	- 5.92
Lake City Experimental Farm	13.7	- 4.6	65.0	- 2.2	26.82	- 2.05
Manistee	20.8	- 2.6	66.8M	- 2.3	34.01	3.09
Maple City	19.0		68.4		33.54	
Northport 2					28.90	
Pellston FAA AP	14.5	- 2.0	64.7	- .8	35.32	4.11
Petoskey	18.7		67.2		E27.77	
St. James Beaver Island	17.8		65.2		30.50	
Thompsonville					34.72	2.15
Traverse City FAA AP	16.8	- 4.0	67.1	- 1.6	29.12	.77
Wellston Tippy Dam					37.58	5.63
Division	16.9	- 3.3	66.1	- 1.2	30.22	.78
Northeast Lower Division						
Alpena WSO AP	16.2	- 1.6	65.9	.4	26.75	- .84
Alpena WW Trtmt Plant	18.3M	- 2.2	66.9M	- .1	28.32	1.14
Atlanta	14.1	- 4.5	--		--	
Cheboygan	15.6	- 4.0	64.2M	- 3.8	26.91	- .32
East Tawas	17.0	- 4.2	M		30.31	1.00
Gaylord 2W	15.0		66.6M		35.14	2.45

TABLE XI-I. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
Northeast Lower Division (cont.)						
Grayling	13.6	- 4.5	65.1	- 2.3	29.79	- 3.26
Hale Loud Dam	15.3	- 3.2	66.4	- .7	27.03	- 1.38
Harrisville 6 N	18.2		64.8M		26.24	
Higgins Lake	-		-		--	
Houghton Lake WSO AP	14.5	- 2.9	65.1	- 1.1	26.33	- 2.06
Lupton 1S	14.5		65.7		28.47	
Mio Hydro Plant	16.1	- 1.8	67.0	.2	E26.40	.03
Onaway State Park	15.9	- 2.9	68.3	.3	E29.58	- .03
Rogers City 3S	M		-		--	
Vanderbilt 11 ENE	12.6	- 4.7	64.6	- 1.3	29.29	- .31
West Branch	-		65.8M	- 1.3	25.42	- 3.55
Division	15.5	- 3.4	65.9	- 1.2	28.25	- .95
West Central Lower Division						
Baldwin	16.5	- 4.3	65.7M	- 3.3	33.15	.20
Hart	18.7	- 4.6	66.8	- 3.0	37.11	4.37
Hesperia 4 WNW	17.0		66.5		39.64	6.60
Ludington 4SE	17.8	- 5.5	66.1	- 2.6	31.14	- .22
Montague 4 N	M		65.3		36.08	
Muskegon WSO AP	19.5	- 4.5	67.3	- 2.7	33.90	2.37
Newaygo 2					33.42	
Scotville 1 NE					--	
Division	17.9	- 4.6	66.3	- 2.9	35.18	2.84
Central Lower Division						
Alma	18.8	- 3.5	68.5	- 3.1	23.63	- 5.58
Big Rapids Waterworks	17.3	- 3.6	67.3	- 1.8	30.19	- 2.40
Evart	15.3		66.1		30.73	
Gladwin	16.2	- 3.5	66.9	- 1.8	25.46	- 6.36
Greenville 2 NNE	18.3	- 4.2	68.7	- 2.6	30.91	- .81
Harrison 1 NNW					27.67	- 3.02
Midland	20.0M	- 3.1	70.6	- 1.0	23.31	- 6.20
Mt. Pleasant Univ.	18.1	- 3.5	68.9	- 2.0	22.77	- 7.07
Division	17.7	- 3.8	68.1	- 2.1	26.71	- 4.07
East Central Lower Division						
Bad Axe	18.3	- 3.2	67.7	- 1.7	24.48	- 4.34
Bay City	18.8	- 4.3	71.0M	- 1.0	--	
Caro State Hospital	18.8	- 3.2	69.8	- .5	25.98	- 2.22
Essexville	-		-		--	
Harbor Beach 3 NW	19.4	- 2.5	67.6	- .8	28.32	- 5.03

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
East Central Lower Division (cont.)						
Millington 3 SW					23.23	- 5.22
Saginaw Consumers Power Co.	20.4		71.0M		25.00	
Saginaw FAA AP	16.6	- 4.8	69.2	- 1.4	24.05	- 6.02
Saint Charles	20.5		71.3		24.27	- 4.63
Sandusky	18.0	- 4.4	67.6	- 2.7	22.83	- 6.10
Sebewaing Michigan Sugar Co.					26.52	- .37
Standish 2 SSW	16.4	- 4.0	66.7	- 2.4	26.41	- 1.36
Division	18.6	- 3.3	69.1	- 1.2	25.03	- 4.09
Southwest Lower Division						
Allegan	17.6	- 7.2	68.6	- 3.4	45.97	12.97
Benton Harbor AP	20.0M	- 5.9	70.3	- 1.1	37.25	1.21
Bloomingdale	18.1	- 6.7	68.1	- 3.7	51.35	14.61
Dowagiac 1 W	19.1		69.9		44.92	
Eau Claire 4 NE	18.4	- 6.3	70.7	- 2.3	40.20	4.60
Grand Haven Fire Department	22.2	- 3.3	69.4	- .8	30.73	.55
Grand Rapids WSO AP	19.3	- 3.9	70.4	- 1.1	36.53	4.14
Gull Lake Biological Station	18.8M	- 4.7	70.7	- 1.3	39.21	5.56
Niles					44.89	
Holland	19.3	- 6.1	68.6	- 2.8	39.54	4.53
Kalamazoo State Hospital	19.3	- 5.5	71.9	- 1.0	41.63	7.64
Kent City 2 SW					33.73	1.71
Lowell					34.27	1.63
South Haven Experimental Farm	20.6	- 5.8	68.9	- 1.8	42.30	8.89
Division	19.3	- 5.6	69.8	- 2.0	40.98	6.35
South Central Lower Division						
Albion					28.62	- 5.17
Battle Creek	19.1	- 4.2	70.7	- 1.1	35.99	1.85
Charlotte	17.7	- 5.4	67.5	- 3.5	33.71	1.26
Coldwater State Sch	17.7	- 6.2	69.6	- 1.5	31.56	- 2.23
East Lansing 3 SE	17.6		68.8		25.37	
Eaton Rapids					29.50	- .73
Grand Ledge 1 NW					29.00	- 1.41
Hastings	17.5	- 6.1	68.5	- 3.3	36.66	5.73
Hillsdale	18.3	- 5.3	68.7	- 2.1	33.78	- 2.95
Ionia	20.0		70.4M		30.29	- .55

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1978 (cont.)

Station	Temperature (°F) January Average	January Departure from normal[a]	July Average	July Departure from normal[a]	Precipitation (inches) Annual total	Precipitation (inches) Departure from normal[a]
South Central Lower Division (cont.)						
Jackson FAA AP	17.3	- 5.7	72.0	.3	27.20	- 3.15
Lansing WSO AP	17.6	- 5.0	69.5	- 1.4	27.44	- 2.95
Owosso Wastew. Plt	18.2	- 4.8	70.3	- .4	26.68	- 6.89
St. Johns	19.1	- 3.5	70.8	- .5	25.28	- 5.17
Three Rivers	18.8	- 5.7	71.0	- 1.0	33.77	- .38
Williamston					E28.88	
Division	18.2	- 5.1	69.8	- 1.5	30.33	- 1.69
Southeast Lower Division						
Adrian 2 NNE	17.9	- 6.4	70.1	- 2.3	32.62	- .28
Ann Arbor, University of Michigan	18.8	- 6.1	70.6	- 2.1	30.03	- .51
Dearborn	19.3		70.8		27.42	
Detroit City AP	21.3	- 4.2	71.5	- 1.8		
Detroit Metro WSO AP	19.6	- 5.0	70.6	- 1.7	27.65	- 4.04
Flint WSO AP	18.2	- 4.1	69.6	- .1	23.69	- 6.08
Grosse Pointe Farms	20.7		71.6		23.45	
Howell WW Plt					25.27	- 4.71
Lapeer	16.0	- 6.6	69.7	- .8	24.44	- 4.10
Milford GM Proving Grounds	16.4	- 5.7	70.5	- .1	26.15	- 7.00
Monroe	19.0M	- 6.7	73.1	- .3	27.15	- 4.14
Mount Clemens AF Base	19.5	- 4.6	6.84	- 3.5	28.47	.78
Pontiac State Hospital	18.9	- 4.6	71.9	.0	24.81	- 5.25
Port Huron	19.1	- 5.4	70.7M	- 1.1	25.40	- 7.93
Washington 2 NNW	17.3		67.3		30.58	
Willis 5 SSW	17.3	- 6.1	68.8	- 2.1	27.24	- 4.89
Yale 1 NNE					24.32	- 5.12
Ypsilanti, Eastern Michigan Univ	19.5	- 5.2	71.8	- 1.0	27.68	- 3.00
Division	18.7	- 5.4	70.4	- 1.6	27.11	- 4.02

SOURCE: National Oceanic and Atmospheric Administration, Climatological Data - Michigan Annual Summary 1978, vol. 93, no. 13 (Asheville, N.C.: 1978), Tables 1 and 2.

a. Normals for all stations are climatological normals based on the period 1941-1970.
M: One or more days record missing; if average value is entered, less than 10 days record is missing.
E: Amount is wholly or partially estimated.
AP: Airport
WSO: Weather station office.
Station names: Figures and letters following the station name, such as 12 SW, indicate distance in miles and direction from post office.

TABLE XI-2. TORNADOES, TORNADO DAYS, AND TORNADO DEATHS IN MICHIGAN: 1918-1975

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Tornadoes													
1918-1967	1	1	8	54	47	52	23	20	19	7	2	0	234
1961-1970	0	0	2	45	8	10	12	17	9	4	0	0	107
1971-1975	0	1	0	16	17	42	24	14	8	0	1	0	123
Tornado days													
1918-1967	1	1	3	21	24	38	19	19	17	6	2	0	151
1961-1970	0	0	2	14	4	8	11	11	7	4	0	0	61
1971-1975	0	1	0	8	10	19	12	11	5	0	1	0	67
Tornado deaths													
1918-1967	0	0	14	74	17	126	3	2	1	0	1	0	238
1961-1970	0	0	0	53	11	1	0	0	0	0	0	0	65
1971-1975	0	0	0	2	1	1	0	0	0	0	0	0	4
Summary totals (1918-1975)													
Tornadoes	1	2	9	76	64	100	52	43	30	8	3	0	388
Tornado days	1	2	4	34	34	61	35	36	24	7	3	0	241
Tornado deaths	0	0	14	76	18	128	3	2	1	0	1	0	243

SOURCE: Michigan Weather Service, special release.

NOTE: Touchdowns only; excludes funnel clouds and water spouts.

TABLE XI-3. REAL PROPERTY LEASED TO THE FEDERAL GOVERNMENT AND FEDERALLY OWNED LAND IN MICHIGAN, BY PREDOMINANT USAGE: 30 SEPTEMBER 1978

Item	Number of leases or installations	Land in acres			Number of locations
		Urban	Rural	Total	
Leased	1,692	1,613.0	6,637.0	8,250.9	1,482[a]
Owned[b]	686	1,853.6	3,443,819.4	3,445,673.0	6,308
Forest and wildlife				2,823,785.3	
Parks and historic sites				597,357.1	
Office building locations				308.9	
Military, excluding airfields				10,117.8	
Airfields				8,595.0	
Harbor and port facilities				72.9	
Flood control and navigation				3,260.3	
Vacant				1.2	
Institutional				1,185.8	
Housing				1.4	
Industrial				268.0	
Research and development				100.3	
Other land				673.0	

SOURCE: General Services Administration, Inventory Report on Real Property Leased to the United States Throughout the World, 30 September 1978 (Washington, D.C.: 1979), Table 5, and Inventory Report on Real Property Owned by the United States Throughout the World, 30 September 1978 (Washington, D.C.: 1979), Tables 6 and 12.

a. Number of locations leased.

b. Detail by predominant usage published for total acreage owned only.

TABLE XI-4. NUMBER OF REPORTED FOREST FIRES IN MICHIGAN AND ACREAGE BURNED AS A RESULT: 1970-1979

Year	Lightning	Campfire	Tobacco smoking	Debris burning	Incendiary	Equipment use	All other	Total
				Number of fires				
1970	39	64	203	461	152	239	237	1,395
1971	25	79	212	347	91	293	163	1,210
1972	17	66	166	324	77	223	187	1,060
1973	7	47	142	295	83	139	119	832
1974	20	45	176	343	109	196	140	1,029
1975	40	77	204	225	79	42	186	853
1976	99	159	258	296	131	103	295	1,341
1977	72	122	223	329	169	155	363	1,433
1978	8	68	120	160	95	47	223	721
1979	7	44	67	113	73	52	116	472
				Acres burned				
1970	56	255	741	2,844	581	947	1,069	6,492
1971	60	449	1,344	1,630	831	993	287	5,597
1972	24	630	1,151	1,628	553	804	864	5,654
1973	7	160	615	1,069	322	241	250	2,664
1974	80	195	1,566	2,176	999	608	464	6,087
1975	143	342	1,041	1,467	4,788	275	8,715	16,775
1976	19,264	645	1,626	1,122	923	505	1,385	25,470
1977	805	710	1,396	3,911	1,563	2,074	1,650	12,109
1978	17	207	513	420	420	159	795	2,639
1979	15	113	152	410	1,049	391	169	2,299

SOURCE: Michigan Department of Natural Resources, special release.

XII. AGRICULTURE, FORESTRY, AND COMMERCIAL FISHERIES

Michigan Agricultural Statistics is an annual publication of the Michigan Department of Agriculture. Many of the data in this chapter are prereleases of statistics that will appear in the 1980 edition.

The Agricultural Experiment Station and the Extension Service at Michigan State University also are sources of information. A list of the research reports issued by the Agricultural Experiment Station is available on request.

Income and employment statistics on agriculture in Michigan counties are prepared annually by the Bureau of Economic Analysis, U.S. Department of Commerce. These are the most comprehensive accounts of agricultural activity for individual counties. They form the basis for the evaluation of agriculture's importance in Table XII-23.

The U.S. Bureau of Commercial Fisheries issues Current Fishery Statistics as well as the annual Fishery Statistics of the United States.

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TABLE XII-1. NUMBER OF FARMS AND FARM ACREAGE IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1900-1980

Year	Old farm definition			New farm definition		
	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)
			Michigan			
1900	203,261	86	17,562	n.a.	n.a.	n.a.
1910	206,960	92	18,941	n.a.	n.a.	n.a.
1920	196,447	97	19,033	n.a.	n.a.	n.a.
1930	179,000	101	18,000	n.a.	n.a.	n.a.
1940	190,000	97	18,400	n.a.	n.a.	n.a.
1950	161,000	111	17,900	n.a.	n.a.	n.a.
1960	118,000	131	15,400	n.a.	n.a.	n.a.
1970	84,000	151	12,700	n.a.	n.a.	n.a.
1975	76,000	155	11,800	70,000	164	11,500
1976	75,000	156	11,700	69,000	165	11,400
1977	74,000	157	11,600	68,000	165	11,200
1978	72,000	158	11,400	65,000	166	10,800
1979	n.a.	n.a.	n.a.	63,000	168	10,600
1980	n.a.	n.a.	n.a.	63,000	167	10,500
			United States (Farms in thousands)			
1900	5,737	147	838,592	n.a.	n.a.	n.a.
1910	6,361	138	878,798	n.a.	n.a.	n.a.
1920	6,448	149	955,884	n.a.	n.a.	n.a.
1930	6,295	157	990,112	n.a.	n.a.	n.a.
1940	6,102	175	1,065,114	n.a.	n.a.	n.a.
1950	5,388	216	1,161,420	n.a.	n.a.	n.a.
1960	3,963	297	1,175,646	n.a.	n.a.	n.a.
1970	2,949	374	1,102,371	n.a.	n.a.	n.a.
1975	2,767	391	1,081,448	2,491	427	1,062,723
1976	2,738	394	1,078,263	2,454	432	1,059,148
1977	2,706	397	1,075,003	2,409	438	1,054,798
1978	2,680	400	1,072,333	2,370	444	1,052,018
1979	n.a.	n.a.	n.a.	2,333	450	1,049,063
1980	n.a.	n.a.	n.a.	2,309	453	1,046,713

SOURCE: Michigan Agricultural Reporting Service, special release.

NOTE: The old farm definition included places of 10 or more acres that had annual sales of $50 or more, or that were smaller but had sales of $250 or more. The new farm definition includes places of any size that had annual sales of agricultural products of $1,000 or more.

n.a.: not available.

TABLE XII-2. GROSS FARM INCOME, PRODUCTION EXPENSES, AND REALIZED NET INCOME IN MICHIGAN AND U.S. AGRICULTURE: 1950-1978

Year	Total ($000,000)			Per farm ($)		
	Gross income	Production expenses	Net farm income	Gross income	Production expenses	Net farm income
			Michigan			
1950-1954[a]	833	508	325	5,507	3,342	2,165
1955-1959[a]	835	571	244	6,365	4,478	1,887
1960-1964[a]	919	663	256	8,386	6,053	2,333
1965-1969[a]	1,033	754	279	11,265	8,235	3,030
1970-1974[a]	1,411	1,028	383	17,396	12,661	4,735
1975	1,869	1,437	490	24,589	18,908	6,446
1976	1,950	1,593	321	25,994	21,240	4,284
1977	2,167	1,715	422	29,279	23,176	5,704
1978	2,458	1,871	554	34,142	25,986	7,695
			United States			
1950-1954[a]	34,996	21,574	13,422	6,739	4,159	2,683
1955-1959[a]	35,571	24,309	11,262	8,168	5,538	2,637
1960-1964[a]	41,258	29,931	11,327	11,193	8,126	3,126
1965-1969[a]	50,791	37,996	12,795	16,073	12,044	4,162
1970-1974[a]	76,949	56,376	20,574	26,971	19,768	7,506
1975	96,938	75,863	24,475	35,034	27,417	8,845
1976	104,177	83,131	18,682	38,051	30,362	6,823
1977	107,478	88,776	19,759	39,712	32,807	7,302
1978	124,914	98,096	27,880	46,750	36,713	10,434

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 7; Farm Income Statistics (Washington, D.C.: Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, 1978), Tables 1H and 3H; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

TABLE XII-3. PRODUCTION EXPENSES OF FARMS IN MICHIGAN, BY CATEGORY: 1950-1978

	Current operating expenses												
Year	Feed	Live-stock	Fertilizer and lime	Seeds	Repairs & mainte-nance	Hired labor	Miscella-neous	Total	Deprecia-tion	Taxes	Inter-est	Rent	Total
1950-1954[a]	59.8	13.8	25.9	14.4	89.2	58.3	48.6	310.0	92.0	15.6	7.6	15.0	440.2
1955 1959[a]	67.3	19.0	38.1	16.0	110.6	49.8	63.2	364.0	132.6	24.4	10.7	8.4	540.1
1960 1964[a]	75.4	20.6	36.7	14.1	118.3	59.9	85.2	410.1	151.3	36.7	16.9	6.5	621.6
1965 1969[a]	80.9	16.2	43.2	17.9	111.1	53.5	96.4	419.2	159.4	48.1	28.8	9.0	664.5
1970	88.5	26.6	52.8	20.2	140.6	66.4	114.4	509.5	203.0	79.2	42.5	4.5	838.7
1971	94.2	22.9	77.6	28.7	116.6	98.2	157.7	595.9	214.3	88.5	45.4	.3	944.4
1972	93.9	24.0	71.9	31.2	114.1	105.0	167.0	607.1	211.3	69.4	47.4	9.1	944.3
1973	141.2	33.1	74.7	43.8	127.9	110.3	185.4	716.4	244.6	78.6	55.4	22.5	1117.5
1974	165.3	32.3	147.1	59.7	156.9	126.0	201.3	888.6	289.7	91.1	67.1	19.4	1355.9
1975	154.9	30.6	149.2	58.8	179.5	116.0	229.0	917.9	323.6	105.2	78.1	12.3	1437.0
1976	181.5	29.6	156.8	71.1	208.6	125.4	249.5	1022.5	357.1	121.2	86.9	-5.3	1593.1
1977	172.8	28.3	172.6	73.5	237.1	130.0	267.5	1081.8	407.0	122.9	97.9	-5.1	1714.8
1978	169.6	32.7	195.1	79.2	253.0	136.2	294.7	1160.5	454.6	131.8	117.8	-5.9	1870.6

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

TABLE XII-4. ACREAGE AND PRODUCTION OF MAJOR MICHIGAN CROPS: 1950-1979

Crop	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1976	1977	1978	1979
				Harvested acreage (Thousands of acres)					
All corn	1,729	1,913	1,895	1,734	2,063	2,660	2,750	2,660	2,870
Winter wheat	1,269	1,037	1,019	839	604	870	825	450	785
Oats	1,331	1,056	745	519	376	385	340	360	270
Tame hay	2,383	2,026	1,791	1,549	1,320	1,290	1,300	1,370	1,330
Soybeans	121	221	300	481	569	565	720	800	970
Dry beans	382	504	567	600	577	545	480	540	490
Sugar beets	62	68	74	80	85	91	86	92	89
Potatoes	67	50	45	44	42	42	40	42	41
Vegetables	138	124	113	102	108	108	114	115	115
Fruit	167[b]	160	152	152	157	149	147	134	112
All crops	8,011	7,449	6,870	6,235	6,062	6,803	6,866	6,811	7,163
				Production (Thousands of units)					
All corn (bu)[c]	62,227	82,662	92,302	93,193	124,393	153,870	197,200	194,400	237,500
Winter wheat (bu)	34,142	33,000	36,365	30,849	23,084	33,060	33,000	18,000	33,755
Oats (bu)	48,049	50,820	37,215	27,392	19,988	19,635	18,700	20,520	16,470
Tame hay (tons)	3,631	3,329	3,356	3,330	3,065	3,060	2,855	3,683	3,833
Soybeans (bu)	2,334	4,990	6,783	10,904	13,397	11,583	21,600	19,200	28,615
Dry beans (cwt)	3,571	5,014	7,437	6,775	6,231	5,450	5,664	6,210	6,860
Sugar beets (tons)	699	980	1,153	1,355	1,571	1,540	1,796	1,770	1,558
Potatoes (bu)	12,468	11,734	13,708	14,678	16,089	16,037	17,072	16,588	15,913
Fruit (ooo lb)	n.a.	n.a.	n.a.	n.a.	n.a.	748	963	1,410	1,073

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 1 and 2; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

b. Estimate.

c. Grain only, excludes silage.

TABLE XII-5. MAJOR LIVESTOCK INVENTORY AND PRODUCTION OF MAJOR LIVESTOCK PRODUCTS IN MICHIGAN: 1950-1980

Livestock or product	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1976	1977	1978	1979	1980
					Inventory, 1 January (thousands)					
All cattle & calves										
Milk cows	930	831	698	568	435	407	405	404	402	400
Beef cows	63	97	119	141	192	208	239	196	138	140
Cattle on feed	100	104	148	185	226	210	215	200	180	165
Total	1,880	1,797	1,759	1,587	1,552	1,550	1,570	1,470	1,250	1,310
Hogs & pigs	812	739	809	652	756	700	720	640	810	960
Sheep & lambs	432	410	365	290	278	138	149	138	121	132
Chickens (all)	10,986	9,930	7,961	8,466	8,126	8,142	6,729	7,959	8,140	8,000
Turkeys (hens)	82	67	82	86	76	62	55	52	40	44
					Production (millions of pounds)					
Milk	5,409	5,272	5,485	4,897	4,670	4,620	4,761	4,793	4,830	n.a.
Cattle & calves	443	431	460	473	476	490	514	502	474	n.a.
Hogs	289	261	260	220	264	247	229	236	310	n.a.
Sheep & lambs	21	22	21	15	11	7	8	8	8	n.a.
Eggs (millions)	1,609	1,626	1,410	1,540	1,486	1,520	1,530	1,497	1,491	n.a.
Chickens (000)	14,493	8,782	4,584	4,413	4,883	4,800	4,560	4,950	4,400	n.a.
Turkeys (000)	1,049	1,162	1,241	1,158	1,040	1,170	1,210	1,210	1,200	n.a.
Commercial broilers (000)	3,485	4,350	2,732	1,200	697	756	910	1,190	2,570	n.a.

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 3 and 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

n.a.: not available.

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1971-1978

(In thousands of dollars)

Item	1971	1972	1973	1974	1975	1976	1977	1978
Livestock and products	518,809	581,403	709,317	687,857	732,935	812,249	836,967	997,659
Dairy	278,897	299,512	325,447	353,860	376,312	447,786	452,265	496,661
Cattle and calves	130,443	156,269	194,052	168,729	175,714	168,812	197,987	306,805
Hogs	55,055	69,476	97,474	86,762	101,511	102,205	95,545	97,554
Eggs	34,479	35,997	62,581	53,813	55,556	67,312	61,898	58,261
Sheep and lambs	3,997	3,297	4,613	4,819	3,376	2,874	3,890	5,320
All chickens	2,560	1,697	2,665	1,898	3,784	3,272	2,932	3,917
Wool	421	534	1,050	701	322	549	744	697
Other[a]	12,957	14,621	21,435	17,275	16,360	19,439	21,706	28,444
Crops	455,525	457,671	790,807	963,982	914,769	908,828	1,042,682	1,129,132
Field crops								
Corn	75,523	70,762	145,055	216,374	219,156	262,828	272,008	244,032
Dry edible beans	66,575	57,843	134,460	99,320	129,744	78,857	111,743	95,891
Soybeans	38,098	30,067	67,856	100,569	63,726	79,251	127,394	159,139
Sugarbeets	18,961	20,311	46,482	64,790	43,524	34,496	39,871	35,296
Wheat	22,150	31,659	71,093	95,236	113,701	81,360	82,272	57,752
Potatoes	21,287	25,240	41,498	48,274	34,142	36,975	40,961	67,048
Hay	11,601	10,961	15,059	18,629	30,154	24,849	26,160	33,779
Oats	6,654	6,083	8,949	15,411	16,644	18,800	16,247	14,516
Mint	827	725	911	1,111	1,281	1,186	1,304	1,352
Red clover seed	411	185	1,345	1,508	765	1,882	1,041	796
Rye	633	414	769	727	515	476	418	712
Barley	344	424	798	1,352	1,053	1,790	1,407	1,086
Vegetables	61,890	68,800	89,458	94,735	84,329	95,501	110,256	121,128
Other	6,450	7,200	8,503	8,389	8,641	12,146	17,794	16,622

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1971-1978 (cont.)

(In thousands of dollars)

Item	1971	1972	1973	1974	1975	1976	1977	1978
Fruit								
Apples	25,582	28,418	36,854	44,802	36,055	39,009	52,914	68,463
Blueberries[b]	n.a.	n.a.	n.a.	n.a.	10,880	15,450	8,378	14,918
Cherries	22,059	22,354	27,041	46,875	25,455	27,831	28,478	72,798
Grapes	8,245	8,752	4,574	8,688	7,170	2,179	7,072	13,854
Peaches	4,704	1,059	5,692	8,108	7,290	5,584	8,502	9,504
Strawberries	5,061	5,218	4,723	5,503	5,297	5,798	4,152	5,621
Pears	1,438	1,922	1,408	1,616	2,023	1,512	2,661	3,055
Plums and prunes	1,423	1,924	2,189	2,076	2,353	2,105	1,953	3,279
Other	9,897	6,328	15,301	12,976	668	355	512	777
Other products								
Forest and maple	5,348	7,321	10,204	11,303	8,927	12,002	12,657	14,534
Greenhouse, nursery	40,364	43,701	50,585	55,610	61,276	66,606	66,527	73,180
All commodities	974,334	1,039,074	1,500,124	1,651,839	1,647,704	1,721,077	1,879,649	2,126,791
Government payments	52,532	61,203	38,888	10,438	13,276	7,300	21,195	45,510
TOTAL	1,026,866	1,100,277	1,539,012	1,662,277	1,660,980	1,728,377	1,900,844	2,172,301

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1977 through 1979 (Lansing: annually), p. 9 (1979), and special release (1978, 1977, 1976, selected updated data).

a. Turkey hatching eggs, other poultry, beeswax, honey, horses and mules, other livestock.

b. Prior to 1975, blueberries included in other.

TABLE XII-7. MICHIGAN INDEXES OF PRICES RECEIVED BY FARMERS, U.S. PRICES PAID BY FARMERS, AND RATIO: 1969-1979

Item	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Livestock											
All livestock	113	116	114	125	160	163	170	184	179	207	238
Dairy products	106	110	113	117	136	156	162	187	183	199	229
Meat products	120	124	118	148	200	176	189	182	178	234	278
Poultry and eggs	124	118	103	93	161	159	151	173	161	162	171
Crops											
All crops	94	98	107	112	174	233	190	189	192	204	217
Cash field	95	104	126	128	231	331	230	231	204	219	233
Fruits	95	80	86	92	124	153	133	143	181	213	226
Vegetables	92	106	98	117	139	135	161	152	189	172	174
Feed crops	94	105	109	104	157	237	223	208	187	191	206
All products	104	108	111	119	166	195	179	187	186	206	229
U.S. prices paid, commodities, services, interest, taxes, and wage rates	108	112	118	125	144	164	180	192	n.a.	n.a.	n.a.
Ratio[a]	96	96	93	95	115	119	99	97	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 11, and special release (U.S. data and 1979 Michigan data).

NOTE: Indexes are calculated using 1969 as the base year.

a. Ratio of Michigan index of prices received for all farm products to U.S. index of prices paid for commodities, services, interest, taxes, and wage rates.

n.a.: not available.

TABLE XII-8. PRICES RECEIVED BY MICHIGAN FARMERS FOR CROPS, LIVESTOCK, POULTRY, AND PRODUCTS: 1970-1979

Item	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Hogs ($ per cwt)	22.90	17.90	25.50	39.50	35.80	48.00	44.70	40.50	47.60	42.90
Beef cattle ($ per cwt)	25.80	26.40	30.50	40.20	36.30	33.50	33.00	32.80	44.20	58.20
Veal calves ($ per cwt)	37.60	40.30	49.70	62.40	45.00	30.40	35.40	38.80	61.60	86.60
Sheep ($ per cwt)	8.90	8.20	9.70	13.60	11.40	11.20	13.70	13.80	20.30	28.00
Lambs ($ per cwt)	27.20	26.60	29.50	36.60	38.60	43.80	47.80	51.60	62.10	66.60
Milk ($ per cwt wholesale)	5.81	5.96	6.17	7.20	8.22	8.55	9.85	9.65	10.50	12.03
Chickens (¢ per lb)	8.1	8.0	8.5	11.8	8.3	14.5	12.0	10.0	11.0	12.0
Eggs (¢ per doz)	36.1	27.8	26.3	49.6	48.4	45.3	53.4	49.6	46.5	50.0
Wool ($ per lb)	.37	.25	.29	.63	.47	.29	.51	.67	.67	.73
Corn, grain ($ per bu)	1.32	1.03	1.49	2.52	2.85	2.35	2.04	1.92	2.22	2.25
Wheat ($ per bu)	1.40	1.34	1.67	4.30	3.80	3.22	2.53	2.02	3.30	3.85
Oats ($ per bu)	.70	.71	.84	1.35	1.60	1.39	1.56	1.27	1.25	1.40
Soybeans ($ per bu)	2.84	3.05	4.60	5.73	6.40	4.78	7.22	5.54	6.81	5.95
Dry beans ($ per cwt)	9.70	11.50	9.70	27.30	16.00	25.90	16.10	18.30	14.80	18.50
All potatoes ($ per cwt)	2.72	2.47	3.66	6.13	4.15	5.56	4.17	4.14	4.57	4.29
All hay ($ per ton)	22.50	28.50	29.50	31.00	37.50	44.00	43.00	58.50	45.50	36.00

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1975 through 1979 (Lansing: annually), p. 12 (1979), and special release (1979 data and selected updated 1977 and 1978 data).

NOTE: Data pertain to marketing year average.

TABLE XII-9. NUMBER OF WORKERS ON MICHIGAN FARMS: 1970-1979

(Annual averages in thousands of persons)

Workers	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Family	116	106	101	98	95	83	83	77	70	66
Hired	23	23	24	23	24	27	29	25	26	28
Total	139	129	125	121	119	110	112	102	96	94

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1974 through 1979 (Lansing: annually), p. 16 (1979), and special release (1979 data).

TABLE XII-10. FIRST FIVE RANKING COUNTIES IN MICHIGAN FOR SELECTED CROP PRODUCTION: 1979

Item	1	2	3	4	5
Corn, grain	Huron	Tuscola	Branch	Lenawee	St. Joseph
Winter wheat	Lenawee	Huron	Sanilac	Ionia	Saginaw
Oats	Sanilac	Huron	Washtenaw	Shiawassee	Tuscola
Soybeans	Lenawee	Saginaw	Monroe	Gratiot	Branch
Dry beans	Huron	Tuscola	Gratiot	Saginaw	Bay
Sugar beets	Tuscola	Huron	Bay	Saginaw	Sanilac

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-11. MICHIGAN YIELDS PER ACRE, NINE LEADING CROPS: 1971-1979

Item	1971	1972	1973	1974	1975	1976	1977	1978	1979
Corn, grain (bu)	69.0	83.0	79.0	60.0	80.0	69.0	85.0	81.0	95.0
Winter wheat (bu)	36.0	40.0	35.0	40.0	38.0	38.0	40.0	40.0	43.0
Oats (bu)	47.0	55.0	50.0	55.0	56.0	51.0	55.0	57.0	61.0
Barley (bu)	43.0	51.0	39.0	49.0	47.0	46.0	52.0	47.0	47.0
Potatoes (cwt)	207	239	216	234	222	231	257	239	235
Soybeans (bu)	20.5	26.0	24.0	21.0	26.0	20.5	30.0	24.0	29.5
Dry beans (cwt)	10.3	12.2	9.8	12.5	9.1	10.0	11.8	11.5	14.0
Sugar beets (tons)	17.1	18.9	17.6	17.0	19.2	16.8	21.0	19.3	17.5
Hay, all (tons)	2.00	2.34	2.49	2.33	2.52	2.37	2.20	2.69	2.88

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1975 through 1979 (Lansing: annually), pp. 20-26, and special release (1979 data).

TABLE XII-12. QUANTITY AND VALUE OF LIVESTOCK AND POULTRY ON FARMS, MICHIGAN AND THE UNITED STATES: 1 JANUARY 1976-1980

	Michigan			United States		
Species and year	Number (1,000)	Value per head or bird	Total value (1,000)	Number (1,000)	Value per head or bird	Total value (1,000)
All cattle and calves						
1976	1,550	270.00	418,500	127,980	190.00	24,351,124
1977	1,570	290.00	455,300	122,810	206.00	25,251,635
1978	1,470	325.00	477,750	116,375	232.00	27,028,660
1979	1,250	500.00	625,000	110,864	403.00	44,661,338
1980	1,310	640.00	838,400	110,961	502.00	55,723,774
All hogs (including pigs)[a]						
1976	700	81.50	57,050	49,267	80.40	3,959,360
1977	720	51.00	36,720	54,934	47.00	2,582,568
1978	640	66.00	42,240	56,539	63.20	3,575,279
1979	810	84.00	68,040	59,860	83.30	4,986,498
1980	960	58.00	55,680	66,950	56.30	3,769,706
All sheep and lambs						
1976	138	33.00	4,554	13,311	37.30	496,291
1977	149	36.50	5,439	12,776	42.40	541,458
1978	138	41.50	5,727	12,348	51.50	636,088
1979	121	55.00	6,655	12,220	71.70	875,927
1980	132	68.00	8,976	12,513	77.90	974,142
All chickens[a]						
1976	8,142	1.60	13,027	379,754	1.74	659,960
1977	7,912	1.65	13,055	378,238	1.70	643,511
1978	7,959	1.35	10,745	386,429	1.69	652,308
1979	8,140	1.55	12,617	394,505	1.75	691,327
1980	8,000	1.45	11,600	399,676	1.81	724,844
Turkey - breeder hens[a]						
1976	62	10.00	620	3,098	10.79	33,427
1977	55	9.00	495	3,069	11.12	34,119
1978	52	10.80	562	3,038	11.37	34,390
1979	40	16.00	640	3,370	12.53	42,222
1980	44	13.00	572	3,700	13.56	50,187
Total value - all species						
1976	--	--	493,751	--	--	29,484,162
1977	--	--	511,009	--	--	29,053,291
1978	--	--	537,024	--	--	31,953,125
1979	--	--	712,952	--	--	51,277,522
1980	--	--	915,228	--	--	61,242,653

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 43, and special release (1980 data, and selected updated data for previous years).

a. 1 December of previous year.

TABLE XII-13. QUANTITY OF LIVESTOCK AND POULTRY ON MICHIGAN FARMS, BY CLASS: 1 JANUARY 1976-1980

(In 1,000 head)

Species and class	1976	1977	1978	1979	1980
Cattle and calves					
Classification by sex and weight					
Cows and heifers that have calved	615	644	600	540	540
Beef cows	208	239	196	138	140
Milk cows	407	405	404	402	400
Heifers, 500 pounds and over	279	267	269	223	257
For beef cow replacement	31	39	29	19	25
For milk cow replacement	202	157	184	149	193
Other heifers	46	71	56	55	39
Steers, 500 pounds plus	270	251	244	187	181
Bulls, 500 pounds plus	26	28	28	19	22
Calves, less than 500 pounds	360	380	329	281	310
All cattle and calves	1,550	1,570	1,470	1,250	1,310
Hogs[a]					
All hogs	700	720	640	810	960
Breeding hogs	98	101	101	134	139
Market hogs	602	619	539	676	821
Sheep and lambs					
Ewe lambs	14	17	13	14	16
Wether and ram lambs	3	3	3	3	3
Ewes, 1 year plus	89	91	88	75	82
Rams and wethers, 1 year plus	4	4	4	3	3
Total stock sheep	110	115	108	95	104
Sheep and lambs on feed	28	34	30	26	28
All sheep and lambs	138	149	138	121	132
Chickens[a]					
Pullets of laying age	3,650	3,380	3,333	3,500	3,850
Hens	2,790	3,060	2,967	2,850	2,400
Hens and pullets of laying age	6,440	6,440	6,300	6,350	6,250
Pullets, 3 months plus	847	641	915	840	825
Pullets, less than 3 months	822	799	703	900	885
Other chickens	33	32	41	50	40
All chickens	8,142	7,912	7,959	8,140	8,000
Turkeys					
Breeding hens	62	55	52	40	44

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), pp. 44-50, and special release (1980 data).

a. 1 December inventory of previous year.

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1975-1979

Crop	Year	Acreage		Production		Price received per unit (dollars)	Value of production ($1,000)
		Planted (000)	Harvested (000)	Per acre	Total (000)		
Corn, all	1975	2,520	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	2,670	n.a.	n.a.	n.a.	n.a.	n.a.
	1977	2,800	n.a.	n.a.	n.a.	n.a.	n.a.
	1978	2,850	n.a.	n.a.	n.a.	n.a.	n.a.
	1979	2,900	n.a.	n.a.	n.a.	n.a.	n.a.
Corn, grain (bu)	1975	n.a.	2,090	80.0	167,200	2.35	392,920
	1976	n.a.	2,230	69.0	153,870	2.04	313,895
	1977	n.a.	2,320	85.0	197,200	1.92	378,624
	1978	n.a.	2,400	81.0	194,400	2.22	431,568
	1979	n.a.	2,500	95.0	237,500	2.25	534,375
Corn, silage (ton)	1975	n.a.	410	12.5	5,125	16.10	82,513
	1976	n.a.	420	11.5	4,830	16.00	77,280
	1977	n.a.	420	12.5	5,250	16.70	87,675
	1978	n.a.	420	12.5	5,250	16.30	80,489
	1979	n.a.	370	13.5	4,995	16.20	80,919
Wheat, winter	1975	910	900	38.0	34,200	3.22	110,124
	1976	880	870	38.0	33,060	2.53	83,642
	1977	870	825	40.0	33,000	2.02	66,660
	1978	470	450	40.0	18,000	3.30	54,400
	1979	800	785	43.0	33,755	3.85	129,957
Oats (bu)	1975	400	370	56.0	20,720	1.39	30,631
	1976	420	385	51.0	19,635	1.56	23,749
	1977	400	340	55.0	18,700	1.27	26,676
	1978	390	360	57.0	20,520	1.25	25,650
	1979	290	270	61.0	16,470	1.40	23,058
Barley (bu)	1975	18	17	47.0	799	2.73	2,181
	1976	20	19	46.0	874	3.25	2,841
	1977	21	19	52.0	988	2.53	2,500
	1978	20	19	47.0	893	2.60	2,322
	1979	18	17	47.0	799	2.65	2,117
Rye (bu)	1975	128	19	24.0	456	1.88	857
	1976	125	18	26.0	468	2.15	1,006
	1977	115	19	24.0	456	1.65	752
	1978	130	25	24.0	600	2.05	1,230
	1979	135	25	25.0	625	2.75	1,719
Soybeans (bu)	1975	615	610	26.0	15,860	4.78	75,811
	1976	570	565	20.5	11,583	7.22	83,629
	1977	730	720	30.0	21,600	5.54	119,664
	1978	810	800	24.0	19,200	6.81	130,752
	1979	980	970	29.5	28,615	5.95	170,259
Dry beans[a]	1975	540	520	9.1	4,732	25.90	122,559
	1976	560	545	10.0	5,450	16.10	67,745
	1977	550	480	11.8	5,664	18.30	103,651
	1978	550	540	11.5	6,210	14.80	91,908
	1979	495	490	14.0	6,860	18.50	126,910
Potatoes, all	1975	37.7	36.4	222	8,076	5.56	44,874
	1976	42.9	41.6	231	9,622	4.17	40,128
	1977	42.0	39.8	257	10,243	4.14	42,376
	1978	43.5	42.3	235	9,953	4.57	45,479
	1979	41.9	40.6	235	9,548	4.29	40,979

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1975-1979 (cont.)

Crop	Year	Acreage Planted (000)	Acreage Harvested (000)	Production Per acre	Production Total (000)	Price received per unit (dollars)	Value of production ($1,000)
Potatoes, summer (cwt)	1975	7.7	7.4	190	1,406	5.35	7,522
	1976	7.9	7.6	170	1,292	3.98	5,142
	1977	8.0	7.8	185	1,443	4.18	6,032
	1978	8.5	8.3	175	1,453	4.80	6,974
	1979	8.9	8.6	180	1,548	n.a.	n.a.
Potatoes, fall (cwt)	1975	30.0	29.0	230	6,670	5.60	37,352
	1976	35.0	34.0	245	8,330	4.20	34,986
	1977	34.0	32.0	275	8,800	4.13	36,344
	1978	35.0	34.0	250	8,500	4.53	38,505
	1979	33.0	32.0	250	8,000	n.a.	n.a.
Sugarbeets (ton)	1975	93.6	91.4	19.2	1,755	24.80	43,524
	1976	93.6	91.4	16.8	1,540	22.40	34,496
	1977	92.3	85.5	21.0	1,796	20.10	36,100
	1978	93.0	91.5	19.3	1,770	23.50	41,595
	1979	92.0	89.0	17.5	1,558	n.a.	n.a.
Hay, all (ton)	1975	n.a.	1,325	2.52	3,335	44.00	146,740
	1976	n.a.	1,290	2.37	3,060	43.00	131,580
	1977	n.a.	1,300	2.20	2,855	58.50	167,018
	1978	n.a.	1,370	2.69	3,633	45.50	167,577
	1979	n.a.	1,330	2.88	3,833	36.00	137,988
Hay, alfalfa (ton)	1975	n.a.	1,000	2.75	2,750	n.a.	n.a.
	1976	n.a.	980	2.60	2,548	n.a.	n.a.
	1977	n.a.	1,000	2.45	2,450	n.a.	n.a.
	1978	n.a.	1,080	2.90	3,132	n.a.	n.a.
	1979	n.a.	1,040	3.10	3,224	n.a.	n.a.
Red clover seed[b] (lb)	1975	n.a.	21,000	95	1,995	39.00	778
	1976	n.a.	46,000	110	5,060	52.00	2,631
	1977	n.a.	25,000	85	2,125	57.00	1,211
	1978	n.a.	25,000	85	2,125	49.00	1,041
	1979	n.a.	26,000	95	2,470	42.00	1,037
Popcorn[c] (lb)	1975	3.7	3.6	2,020	7,270	10.20	742
	1976	5.5	4.6	2,900	13,340	9.35	1,247
	1977	2.0	1.9	3,750	7,125	8.55	609
	1978	2.2	2.1	3,450	7,250	8.20	595
	1979	5.5	5.4	3,400	18,360	8.90	1,634

SOURCES: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 26, and special release (1979 data, and selected updated data for previous years).

a. Production per acre in pounds.

b. Clean seed basis, and price per cwt.

c. Shelled corn basis, price per cwt.

n.a.: not available.

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1974-1979

Fruit	Year	Trees of bearing age		Production		Price received (dollars per cwt.)	Value of production ($1,000)
		Number (1,000)	Acres (1,000)	Utilized (million lbs.)	Total (million lbs.)		
Apples[a]							
	1974	3,100	52.5	670	670	6.20	41,540
	1975	3,100	51.7	680	700	5.10	34,680
	1976	3,100	51.7	480	480	8.80	42,240
	1977	3,100	51.7	570	570	7.90	45,030
	1978	3,000	44.5	890	920	7.60	67,640
	1979	2,700	40.5	680	680	8.30	56,440
Peaches[a]	1974	1,350	13.5	70	70	11.70	8,190
	1975	1,260	12.5	55	65	13.40	7,370
	1976	1,200	11.9	40	40	14.10	5,640
	1977	1,200	11.9	55	55	15.60	8,580
	1978	1,200	11.9	60	60	16.00	9,600
	1979	587	5.8	35	35	19.40	6,790
Cherries, tart	1974	3,100	36.0	206	206	18.35	37,801
	1975	3,000	34.9	182	222	10.00	18,200
	1976	2,900	33.7	90	90	25.40	22,860
	1977	2,800	32.2	162	162	29.50	47,790
	1978	2,700	31.1	128	128	44.40	56,832
	1979	2,610	27.9	100	100	48.50	48,500
Cherries, sweet	1974	980	11.8	56	56	18.00	10,080
	1975	980	12.1	62	62	11.80	7,316
	1976	980	12.1	27	27	29.80	8,046
	1977	980	12.1	46	46	20.50	9,430
	1978	980	12.1	70	70	22.90	16,030
	1979	830	9.6	49	49	20.40	9,996
Blueberries[b]	1975	--	8.5	32	32	34.00	10,880
	1976	--	8.5	35.9	35.9	43.00	15,450
	1977	--	8.0	11.8	11.8	71.00	8,378
	1978	--	8.0	22.5	22.5	66.30	14,918
	1979	n.a.	8.7	36.0	36.0	44.90	16,164

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1976-1979 (cont.)

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Strawberries[b]							
	1976	3,000	2,900	60	174	$ 33.30	5,798
	1977	2,900	2,800	54	151	31.80	4,795
	1978	2,800	2,700	57	154	36.50	5,621
	1979	2,600	2,500	54	135	49.00	6,619

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), pp. 37-39, and special release (1979 data, and selected updated data for previous years).

a. For onions--value of sales.

b. Includes processing.

c. Bearing acres only.

TABLE XII-17. MICHIGAN STRAWBERRIES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1976-1979

Year	Fresh market			Processing		
	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)
1976	100	$ 36.00	3,600	74	$ 29.70	2,198
1977	95	33.00	3,135	56	29.70	1,660
1978	84	42.00	3,528	70	29.90	2,093
1979	82	56.10	4,600	53	38.10	2,019

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 37, and special release (1979 data).

TABLE XII-18. MICHIGAN VEGETABLES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1976-1979

Crop	Year	Fresh market			Processing		
		Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (tons)	Price received per ton	Value of production ($1,000)
Asparagus	1976	20	38.70	774	8,000	645.00	5,160
	1977	13	51.00	663	8,850	868.00	7,682
	1978	15	60.00	900	10,500	1,120.00	11,760
	1979	19	78.40	1,490	10,080	1,137.00	11,461
Carrots	1976	1,195	9.81	11,721	22,300	41.20	919
	1977	1,041	11.60	12,126	13,000	51.30	667
	1978	1,088	13.20	14,341	26,300	49.10	1,291
	1979	1,129	n.a.	n.a.	29,300	n.a.	n.a.
Cauliflower	1976	27	23.30	629	150	133.00	20
	1977	24	28.40	682	1,350	132.00	178
	1978	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1979	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 39, and special release (1979 data and selected updated data for previous years).

n.a.: not available.

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1974-1979 (cont.)

Fruit	Year	Trees of bearing age: Number (1,000)	Trees of bearing age: Acres (1,000)	Production: Utilized (million lbs.)	Production: Total (million lbs.)	Price received (dollars per cwt.)	Value of production ($1,000)
Prunes and plums							
	1974	695	7.3	16,000	16,000	175.00	2,800
	1975	700	7.4	20,000	21,000	119.00	2,380
	1976	700	7.4	16,000	16,000	133.00	2,128
	1977	700	7.4	14,000	14,000	141.00	1,974
	1978	700	7.4	24,000	24,000	138.00	3,312
	1979	412	4.4	14,000	14,000	207.00	2,898
Grapes[c]	1974	7,900	15.8	47,500	47,500	184.00	8,740
	1975	7,900	15.8	55,000	56,000	131.00	7,205
	1976	7,900	15.8	14,500	14,500	153.00	2,219
	1977	7,900	15.8	33,000	33,000	216.00	7,128
	1978	7,900	15.8	67,500	67,500	223.00	15,053
	1979	6,100	12.2	58,500	58,500	237.00	13,865
Pears	1974	830	8.7	13,000	14,000	160.00	2,080
	1975	750	7.9	15,000	15,000	140.00	2,100
	1976	730	7.9	7,000	7,000	224.00	1,568
	1977	710	7.5	12,000	12,000	230.00	2,760
	1978	710	7.5	13,000	13,000	208.00	2,704
	1979	290	3.0	14,000	14,000	209.00	2,926

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 31, and special release (1979 data, and selected updated data for previous years).

a. Apples and peaches in millions of pounds; other fruits in tons.

b. Bushes of bearing age.

c. Number of vines of bearing age.

n.a.: not available.

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1976-1979

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Asparagus[b]							
	1976	18,700	18,000	10	180	$ 33.00	774
	1977	17,700	17,300	11	190	43.90	663
	1978	17,700	17,300	13	225	56.30	12,660
	1979	17,500[c]	17,000	13	221	58.60	12,951
Beans, snap	1976	2,900	2,800	33	92	20.00	1,840
	1977	3,000	2,700	34	92	20.20	1,858
	1978	3,000	2,600	30	78	23.10	1,802
	1979	3,100	2,900	28	81	25.60	2,074
Cabbage, summer[b]	1976	2,500	2,300	150	345	4.41	1,523
	1977	2,400	2,300	170	391	5.32	2,080
	1978	2,300	2,200	175	385	8.85	3,408
	1979	2,250	2,150	167	358	5.57	1,993
Cabbage, fall[b]	1976	1,900	1,700	170	289	3.99	1,152
	1977	1,900	1,600	195	312	4.72	1,474
	1978	1,800	1,700	190	323	5.05	1,632
	1979	1,850	1,750	162	284	5.08	1,442
Cantaloupe	1976	2,100	2,000	75	150	13.70	2,055
	1977	2,100	2,000	80	160	11.10	1,776
	1978	2,200	2,100	80	168	12.20	2,050
	1979	2,000	1,900	85	162	16.20	2,624
Carrots, summer[b]	1976	3,300	3,300	260	858	7.35	6,308
	1977	3,200	3,000	230	690	9.57	6,601
	1978	3,400	3,200	255	816	11.30	9,248
	1979	3,400	3,400	245	833	8.39	7,000
Carrots, fall[b]	1976	2,700	2,700	290	783	8.09	6,332
	1977	3,100	2,600	235	611	10.10	6,192
	1978	3,100	2,900	275	798	8.00	6,384
	1979	3,300	3,200	275	880	7.21	6,345
Cauliflower	1976	600	550	55	30	21.60	649
	1977	900	850	60	51	16.90	860
	1978	800	600	50	30	26.70	802
	1979	900	800	65	52	25.40	1,320

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1976-1979 (cont.)

Crop and season	Year	Acres		Production		Price received	Value of production[a]
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)	(per cwt)	($1,000)
Celery, summer[b]	1976	1,900	1,800	445	801	$ 8.54	6,842
	1977	2,000	1,900	445	846	8.39	7,096
	1978	2,200	2,000	405	810	14.40	11,656
	1979	2,300	2,200	445	979	9.83	9,627
Celery, fall[b]	1976	600	500	430	215	8.48	1,823
	1977	500	500	455	228	7.71	1,758
	1978	400	300	420	126	12.20	1,541
	1979	400	400	435	174	7.79	1,355
Corn, sweet	1976	12,500	12,300	57	701	7.33	5,138
	1977	12,500	12,300	63	775	7.07	5,479
	1978	12,000	11,700	60	702	9.28	6,515
	1979	11,700	11,500	58	667	8.32	5,549
Cucumbers	1976	2,000	2,000	70	140	11.00	1,540
	1977	2,200	2,100	80	168	9.28	1,559
	1978	2,200	2,100	70	147	12.10	1,779
	1979	2,000	1,900	80	152	14.80	2,250
Lettuce	1976	1,600	1,400	170	238	13.90	3,308
	1977	1,600	1,400	170	238	9.60	2,285
	1978	1,600	1,400	195	273	13.70	3,740
	1979	1,600	1,500	170	255	20.50	5,228
Onions[b]	1976	7,300	7,100	305	2,166	9.40	18,424
	1977	7,500	7,100	295	2,095	6.30	10,584
	1978	7,500	7,200	340	2,448	5.77	11,863
	1979	7,300	7,200	345	2,484	5.56	12,421
Peppers[b]	1976	1,600	1,500	70	105	17.10	1,796
	1977	1,500	1,400	75	105	17.50	1,838
	1978	1,600	1,500	78	117	20.10	2,352
	1979	1,600	1,500	75	113	26.60	3,006
Tomatoes	1976	4,400	4,300	95	409	15.50	6,340
	1977	4,300	4,100	95	390	22.90	8,931
	1978	4,200	3,900	95	371	18.70	6,938
	1979	3,900	3,700	100	370	25.10	9,287

TABLE XII-19. MICHIGAN VEGETABLES FOR PROCESSING, ACREAGE, YIELD, PRODUCTION, AND VALUE: 1975-1979

Crop and season	Year	Acres planted	Acres harvested	Production Per acre tons	Production Total tons	Price received per ton	Value of production ($1,000)
Snap beans							
	1975	13,600	13,100	2.29	30,000	$ 129.00	3,870
	1976	14,200	14,000	2.17	30,400	122.00	3,709
	1977	17,500	16,800	2.46	41,300	125.00	5,163
	1978	18,000	16,400	2.10	34,450	148.00	5,099
	1979	17,600	17,300	2.08	35,980	162.00	5,829
Cucumbers for pickles	1975	30,400	27,600	4.68	129,200	124.00	16,021
	1976	17,000	25,500	4.05	103,300	112.00	11,570
	1977	25,200	24,500	4.65	114,000	109.00	12,426
	1978	27,500	26,500	4.75	126,000	120.00	15,120
	1979	26,500	25,500	4.62	117,810	132.00	15,551
Tomatoes							
	1975	4,700	4,400	14.39	63,300	64.00	4,051
	1976	4,100	4,000	18.63	74,500	65.20	4,857
	1977	4,200	4,100	15.49	63,500	65.80	4,178
	1978	4,600	4,500	18.04	81,200	67.30	5,465
	1979	6,200	6,100	18.61	113,520	68.30	7,753

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1979 (Lansing: 1979), p. 37, and special release (1979 data).

TABLE XII-20. ONION PRODUCTION AND UTILIZATION IN MICHIGAN: 1973-1979

(1,000 cwt)

Year	Sales Before Jan. 1	Sales After Jan. 1	Sales Total	Shrinkage Before Jan. 1	Shrinkage After Jan. 1	Total production	Total stocks Jan. 1[a]	Stocks as percentage of total production
1973	1,130	670	1,800	156	90	2,046	760	37.1
1974	1,190	727	1,917	149	73	2,139	800	37.4
1975	915	525	1,440	263	65	1,768	590	33.4
1976	1,230	730	1,960	176	30	2,166	700	32.3
1977	1,060	620	1,680	320	95	2,095	715	34.1
1978	1,145	911	2,056	253	139	2,448	1,050	42.9
1979	1,165	975	2,250	234	110	2,484	1,085	43.7

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics 1979 (Lansing: 1979), p. 38, and special release (1979 data).

a. Stocks for the following year.

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1979

County or district	Crop: Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Alger	19,200	8,400	--	--	--	--	--
Baraga	13,300	4,400	--	--	--	--	--
Chippewa	103,600	5,000	--	--	--	15,600	--
Delta	134,000	33,000	--	--	75,500	4,400	--
Dickinson	41,500	13,000	--	--	49,700	1,300	--
Gogebic	5,100	--	--	--	--	--	--
Houghton	58,700	4,700	--	--	10,300	3,400	--
Iron	35,000	5,700	--	--	--	1,600	--
Keweenaw	--	--	--	--	--	--	--
Luce	14,800	2,900	--	--	--	1,500	--
Mackinac	38,400	3,400	--	--	1,2500	3,100	--
Marquette	14,400	14,000	--	--	--	--	--
Menominee	181,000	82,000	--	--	418,000	16,000	3,150
Ontonagon	35,200	4,100	--	--	--	4,100	--
Schoolcraft	25,800	9,000	--	--	--	--	2,250
Upper Peninsula (1)	720,000	190,000	16,000	--	589,000	52,000	6,500
Antrim	55,300	2,100	--	--	288,800	30,000	--
Benzie	1,700	--	--	--	44,400	3,000	--
Charlevoix	43,000	5,300	--	--	231,400	4,500	--
Emmet	65,500	4,200	--	--	184,800	6,000	--
Grand Traverse	30,700	--	--	--	362,600	22,000	1,100
Kalkaska	6,800	--	--	--	169,500	15,500	2,200
Leelanau	63,200	--	--	--	210,600	11,000	--
Manistee	15,000	--	--	--	91,200	23,000	6,450
Missaukee	181,000	--	--	--	635,100	22,000	--
Wexford	37,800	--	--	--	319,600	31,000	1,100
Northwest (2)	500,000	12,500	28,400	--	2,538,000	168,000	12,000

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1979 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Alcona	77,400	--	--	--	118,200	33,000	--
Alpena	235,300	6,900	--	--	279,500	65,000	2,350
Cheboygan	98,400	8,000	--	--	95,200	11,000	1,200
Crawford	5,000	--	--	--	--	--	--
Iosco	116,000	2,200	--	--	332,000	40,000	16,800
Montmorency	122,000	6,700	--	--	72,300	13,500	--
Ogemaw	168,000	6,300	--	--	569,500	26,000	5,900
Oscoda	29,200	--	--	--	93,600	3,600	--
Otsego	63,900	5,200	--	--	111,200	13,000	--
Presque Isle	399,000	4,200	--	--	74,000	18,000	2,000
Roscommon	5,800	--	--	--	--	--	--
Northeast (3)	1,320,000	40,000	55,700	--	1,748,000	224,000	30,000
Lake	24,000	--	--	--	79,200	11,000	--
Mason	102,000	--	--	--	706,600	131,000	7,300
Muskegon	49,000	--	--	--	992,300	82,000	18,400
Newaygo	122,000	--	--	--	1,549,400	104,000	13,300
Oceana	53,000	--	--	--	413,500	133,000	2,500
West Central (4)	350,000	2,500	4,400	--	3,741,000	461,000	41,500
Clare	107,000	--	--	--	479,000	66,000	1,000
Gladwin	201,000	3,300	24,600	--	1,198,000	130,000	42,500
Gratiot	293,000	--	830,000	82,600	7,011,000	1,100,000	2,200,000
Isabella	449,000	35,000	179,000	--	4,682,000	705,000	304,000
Mecosta	178,000	4,500	25,300	--	1,536,000	160,000	7,700
Midland	106,000	--	159,000	38,500	2,129,000	348,000	632,000
Montcalm	416,000	7,300	250,000	--	5,706,000	810,000	225,000
Osceola	200,000	--	--	--	456,000	51,000	3,800
Central (5)	1,950,000	52,000	1,470,000	127,300	23,197,000	3,370,000	3,416,000

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1979 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Arenac	171,000	--	150,000	25,900	1,774,000	195,000	140,000
Bay	52,000	--	650,000	270,700	3,463,000	680,000	230,000
Huron	1,127,000	72,000	1,140,000	301,600	11,226,000	2,065,000	145,000
Saginaw	331,000	24,000	760,000	230,200	6,055,000	1,692,000	2,470,000
Sanilac	1,401,000	66,000	630,000	150,200	9,435,000	1,980,000	375,000
Tuscola	593,000	192,000	970,000	376,900	10,075,000	1,688,000	240,000
East Central (6)	3,675,000	356,000	4,300,000	1,355,500	42,028,000	8,300,000	3,600,000
Allegan	348,000	4,200	--	--	8,330,000	437,000	22,000
Berrien	51,000	3,900	3,300	--	4,299,000	350,000	450,000
Cass	114,000	5,900	--	--	7,022,000	334,000	370,000
Kalamazoo	202,000	--	1,200	--	5,294,000	650,000	350,000
Kent	402,000	--	21,000	--	4,956,000	449,000	9,000
Ottawa	201,000	8,800	--	--	4,873,000	240,000	11,000
Van Buren	81,000	3,600	--	--	4,250,000	265,000	145,000
Southwest (7)	1,399,000	28,000	25,500	--	39,024,000	2,725,000	1,357,000
Barry	168,000	6,800	23,400	--	3,749,000	372,000	77,000
Branch	193,000	1,800	--	--	10,371,000	618,000	800,000
Calhoun	386,000	3,900	2,800	--	7,930,000	872,000	290,000
Clinton	459,000	6,900	107,000	--	4,842,000	1,345,000	1,020,000
Eaton	246,000	4,500	259,000	--	5,695,000	1,455,000	340,000
Hillsdale	188,000	2,600	--	--	9,293,000	529,000	750,000
Ingham	245,000	3,500	36,500	--	8,981,000	973,000	385,000
Ionia	549,000	11,000	137,000	--	7,418,000	1,767,000	300,000
Jackson	364,000	2,400	5,000	--	6,487,000	472,000	78,000
St. Joseph	53,000	2,900	3,300	--	8,297,000	897,000	550,000
Shiawassee	627,000	3,700	119,000	--	3,972,000	1,430,000	1,030,000
South Central (8)	3,478,000	50,000	693,000	3,900	77,065,000	10,730,000	5,620,000

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TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1979 (cont.)

County or district	Crop						
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)
Genesee	356,000	2,300	15,000	--	4,298,000	743,000	305,000
Lapeer	388,000	47,000	158,000	--	4,302,000	507,000	68,000
Lenawee	542,000	3,900	--	41,760	11,827,000	2,850,000	2,550,000
Livingston	295,000	1,700	4,400	--	3,834,000	410,000	42,000
Macomb	116,000	--	11,600	--	1,834,000	282,000	242,000
Monroe	209,000	2,600	--	8,200	8,065,000	1,240,000	2,400,000
Oakland	79,000	--	--	--	1,469,000	172,000	12,000
St. Clair	421,000	4,200	77,000	12,640	4,256,000	630,000	355,000
Washtenaw	656,000	6,300	--	--	7,066,000	745,000	325,000
Wayne	16,000	--	--	--	619,000	146,000	191,000
Southeast (9)	3,078,000	68,000	267,000	63,300	47,570,000	7,725,000	6,490,000
State	16,470,000	799,000	6,860,000	1,550,000	237,500,000	33,755,000	19,200,000

SOURCE: Michigan Department of Agriculture, special release.

a. Counties with less than 1,000 acres not published due to change in data collection methods.

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1980

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alger	200	3,000	3,200	1,500	900	600
Baraga	--	--	2,000	1,200	700	500
Chippewa	570	50,000	10,500	4,800	3,000	1,800
Delta	800	5,000	10,100	5,300	2,600	2,700
Dickinson	--	1,000	3,000	1,700	1,100	600
Gogebic	--	--	1,200	600	200	900
Houghton	140	7,000	3,500	1,900	1,400	500
Iron	150	1,500	2,500	1,100	200	900
Keweenaw	100	--	--	--	--	--
Luce	200	7,000	1,200	200	--	200
Mackinac	--	--	4,000	1,700	1,100	600
Marquette	400	--	2,000	900	600	300
Menominee	1,000	15,000	20,800	10,100	8,300	1,800
Ontonagon	200	9,000	3,800	2,000	800	1,200
Schoolcraft	140	--	2,500	1,000	100	900
Upper Peninsula (1)	4,000	100,000	70,300	34,000	21,000	13,000
Antrim	1,000	45,000	7,000	2,700	1,600	1,100
Benzie	2,300	--	2,000	700	200	500
Charlevoix	460	20,000	6,400	2,500	1,500	1,000
Emmet	150	3,000	7,200	2,900	1,300	1,600
Grand Traverse	1,500	20,000	5,200	1,800	1,100	700
Kalkaska	900	8,000	1,400	700	500	200
Leelanau	1,000	15,000	6,200	1,700	900	800
Manistee	790	15,000	3,000	1,200	300	900
Missaukee	2,100	70,000	18,100	8,200	7,000	1,200
Wexford	800	7,600	5,300	2,100	1,600	500
Northwest (2)	11,000	204,000	61,800	24,500	16,000	8,500

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1980 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alcona	730	29,400	7,000	3,400	1,000	2,400
Alpena	1,800	21,300	12,000	5,100	2,900	2,200
Cheboygan	980	--	7,300	3,400	1,300	2,100
Crawford	--	--	100	--	--	--
Iosco	2,800	1,000	9,000	3,700	1,200	2,500
Montmorency	150	2,000	5,000	2,200	1,400	800
Ogemaw	500	--	12,900	5,200	4,000	1,200
Oscoda	450	3,400	3,300	1,300	1,000	300
Otsego	200	--	4,000	2,000	700	1,300
Presque Isle	780	5,300	11,300	5,700	2,700	3,000
Roscommon	--	--	400	200	--	200
Northeast (3)	8,500	65,000	72,300	32,200	16,200	16,000
Lake	400	2,100	2,500	1,100	500	600
Mason	1,300	23,900	11,600	4,700	3,600	1,100
Muskegon	2,900	20,000	13,400	5,200	4,300	900
Newaygo	6,000	150,000	19,300	9,600	8,000	1,600
Oceana	3,800	19,000	11,900	4,700	2,900	1,800
West Central (4)	14,400	215,000	58,700	25,300	19,300	6,000
Clare	5,000	--	12,000	5,100	2,900	2,200
Gladwin	2,500	1,000	10,000	4,500	2,100	2,400
Gratiot	17,400	175,000	29,000	9,100	7,400	1,700
Isabella	16,500	110,000	35,600	13,600	11,400	2,200
Mecosta	3,300	45,000	18,200	7,600	5,200	2,400
Midland	4,100	1,000	6,000	1,800	800	1,000
Montcalm	8,200	89,500	23,600	11,300	9,700	1,600
Osceola	4,000	18,000	22,000	10,600	7,600	3,000
Central (5)	61,000	440,000	156,400	63,600	47,100	16,500

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1980 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Arenac	5,000	6,000	9,700	4,300	3,700	600
Bay	2,600	10,000	5,000	2,500	2,000	500
Huron	22,000	1,064,000	75,400	24,800	20,500	4,300
Saginaw	10,100	30,000	16,500	7,000	5,800	1,200
Sanilac	9,800	15,000	73,100	33,100	29,600	3,500
Tuscola	19,500	425,000	23,700	9,300	7,400	1,900
East Central (6)	69,000	1,550,000	203,400	81,000	69,000	12,000
Allegan	72,500	570,000	45,000	18,500	15,600	2,900
Berrien	21,000	100,000	8,700	3,600	2,300	1,300
Cass	150,000	49,000	16,200	6,300	3,300	3,000
Kalamazoo	32,000	80,000	19,200	6,100	4,100	2,000
Kent	17,500	202,000	39,100	17,200	12,800	4,400
Ottawa	55,000	1,130,000	37,900	16,600	13,300	3,300
Van Buren	34,000	145,000	15,000	5,000	2,900	2,100
Southwest (7)	382,000	2,276,000	181,100	73,300	54,300	19,000
Barry	14,000	75,000	25,800	11,100	8,200	2,900
Branch	44,100	14,000	23,000	8,200	6,000	2,200
Calhoun	36,000	90,500	30,000	11,900	7,900	4,000
Clinton	24,000	33,000	40,000	16,600	14,800	1,800
Eaton	18,400	44,000	21,900	10,000	6,100	3,900
Hillsdale	36,000	100,000	31,200	13,300	10,500	2,800
Ingham	24,000	60,500	30,800	13,800	11,200	2,600
Ionia	25,000	300,000	38,500	17,200	14,000	3,200
Jackson	13,500	15,000	35,600	13,300	8,300	5,000
St. Joseph	44,000	118,000	18,500	6,900	4,800	2,100
Shiawassee	11,000	70,000	25,700	10,700	9,200	1,500
South Central (8)	290,000	920,000	321,000	133,000	101,000	32,000

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1980 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Genesee	8,000	42,300	16,400	6,100	4,100	2,000
Lapeer	10,000	7,000	34,900	13,900	11,500	2,400
Lenawee	49,000	102,000	31,000	10,200	8,200	2,000
Livingston	7,000	5,300	21,700	10,000	7,900	2,100
Macomb	4,100	17,900	10,000	4,700	3,700	1,000
Monroe	15,000	105,000	8,000	2,200	1,800	400
Oakland	2,900	21,000	6,500	2,800	1,500	1,300
St. Clair	5,700	102,000	25,100	10,800	7,800	3,000
Washtenaw	16,200	30,000	30,500	11,900	9,400	2,500
Wayne	2,100	47,500	900	500	200	300
Southeast (9)	120,000	480,000	185,000	73,100	56,100	17,000
Michigan Total	960,000	6,250,000	1,310,000	540,000	400,000	140,000

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in agriculture[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Missaukee	26.03	4,256	31.62	6,873
Oceana	19.21	8,143	25.88	13,720
Huron	19.33	25,957	22.40	36,576
Leelanau	12.96	3,477	21.71	7,284
Sanilac	17.50	21,783	18.67	27,438
Clinton	10.17	9,697	12.00	13,672
Arenac	8.79	3,112	11.42	4,112
Tuscola	11.54	19,657	10.87	20,932
Newaygo	8.12	6,517	10.81	9,976
Allegan	8.82	18,753	10.67	27,239
Hillsdale	9.99	15,339	9.85	17,169
Van Buren	6.25	11,066	9.79	20,581
Cass	8.98	12,630	9.11	15,134
Ioria	5.69	8,831	8.95	16,616
Antrim	3.92	1,675	8.55	4,494
Gratiot	9.18	16,103	8.55	16,152
Montcalm	4.82	7,884	8.17	14,944
Lapeer	7.85	14,561	7.93	16,968
Benzie	4.19	1,257	7.64	2,710
Mecosta	4.54	3,984	7.17	7,217
Osceola	4.56	2,396	7.01	4,212
Barry	4.99	5,446	6.87	8,604
Isabella	3.64	6,325	6.75	13,769
Oscoda	4.02	520	6.08	888
Branch	6.50	12,125	5.31	11,261
Eaton	5.21	8,468	5.14	9,363
Mason	3.18	2,963	4.99	5,357
Menominee	4.17	3,497	4.97	4,829
Presque Isle	3.25	1,469	4.80	2,495
Lake	2.00	226	4.45	541
St. Joseph	5.16	12,407	4.20	11,313
Ogemaw	5.96	2,339	4.19	1,909
Lenawee	6.80	28,180	4.14	18,418
Gladwin	5.00	1,610	3.94	1,461
Livingston	2.98	6,113	3.51	8,514

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in agriculture[a]			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Manistee	1.41	1,169	3.08	2,967
Grand Traverse	1.62	4,389	3.06	9,916
Ottawa	2.45	16,282	2.96	23,348
Montmorency	2.48	407	2.75	558
Berrien	1.68	15,009	2.68	26,486
St. Clair	1.71	8,465	2.39	13,428
Bay	2.48	13,291	2.36	13,732
Monroe	4.70	19,963	2.33	10,795
Kalkaska	1.20	420	1.99	773
Alger	1.50	389	1.72	503
Iron	1.64	658	1.68	730
Shiawassee	3.10	6,295	1.66	3,621
Clare	1.30	612	1.64	900
Cheboygan	.65	405	1.55	1,117
Alcona	6.40	981	1.47	247
Houghton	1.02	1,092	1.42	1,669
Wexford	1.11	1,130	1.42	1,611
Saginaw	2.10	32,268	1.36	23,560
Calhoun	1.02	9,001	1.28	12,496
Delta	1.33	2,026	1.28	2,134
Otsego	.73	465	1.20	890
Baraga	.98	238	1.19	382
Dickinson	1.15	1,499	1.12	1,671
Charlevoix	1.23	892	1.03	877
Chippewa	.79	861	.91	871
Kent	.61	16,454	.88	27,518
Gogebic	.79	417	.82	474
Kalamazoo	.80	10,725	.82	12,200
Luce	.56	183	.81	290
Jackson	.67	5,249	.79	7,141
Midland	.79	4,265	.75	4,503
Muskegon	.52	4,097	.75	6,631
Mackinac	.61	246	.70	319
Emmet	.80	786	.64	711
Ontonagon	.76	370	.62	313

TABLE XII-23. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN AGRICULTURE, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in agriculture[a] 1977 As a percentage of total labor and proprietors' earnings	1977 Total ($000)	1978 As a percentage of total labor and proprietors' earnings	1978 Total ($000)
Iosco	.94	1,020	.60	708
Washtenaw	.64	13,345	.58	14,097
Alpena	.18	248	.51	819
Ingham	.42	9,515	.43	10,988
Macomb	.28	10,676	.27	12,206
Genesee	.19	6,574	.25	9,590
Roscommon	0	0	.21	82
Marquette	.06	212	.07	288
Oakland	.05	3,494	.06	4,639
Schoolcraft	.55	162	.04	13
Wayne	.02	4,421	.02	3,402
Crawford	0	0	0	0
Keweenaw	0	0	0	0
Michigan	.97	539,461	1.07	674,960
United States	2.18	25,389,000	2.52	33,188,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1978 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

a. Negative earnings can occur as a result of net losses to farm proprietors being greater than net wages and salaries paid to farm employees.

TABLE XII-24. MICHIGAN COUNTIES RANKED ACCORDING TO 1977 CASH RECEIPTS FROM TOTAL MARKETINGS: 1976 AND 1977

(Millions of dollars)

County	1976	1977	County	1976	1977
Huron	96	98	Midland	13	14
Sanilac	77	79	Mason	12	13
Allegan	69	72	Menominee	12	13
Lenawee	69	71	Missaukee	12	12
Tuscola	70	71	Arenac	12	12
Saginaw	66	68	Osceola	11	11
Ottawa	62	65	Wayne	11	11
Berrien	50	59	Antrim	8	10
Kent	50	55	Manistee	6	7
Gratiot	53	54	Presque Isle	7	7
Van Buren	44	51	Ogemaw	7	7
Lapeer	43	45	Clare	6	7
Monroe	42	43	Delta	6	6
Clinton	42	43	Gladwin	6	6
Ionia	41	43	Alpena	6	6
Calhoun	39	41	Benzie	4	5
Hillsdale	39	40	Dickinson	4	5
Ingham	38	40	Iosco	4	4
Bay	38	39	Chippewa	4	4
Cass	37	39	Charlevoix	4	4
Washtenaw	36	37	Wexford	4	4
Montcalm	36	37	Emmet	3	3
St. Joseph	35	36	Houghton	3	3
Kalamazoo	34	35	Cheboygan	3	3
Branch	34	35	Alcona	3	3
St. Clair	33	34	Oscoda	2	2
Isabella	33	34	Montmorency	2	2
Jackson	31	32	Otsego	2	2
Shiawassee	31	32	Mackinac	1	2
Eaton	30	31	Iron	1	2
Oceana	22	27	Ontonagon	1	1
Macomb	24	25	Marquette	1	1
Newaygo	23	25	Alger	1	1
Genesee	23	24	Kalkaska	1	1
Barry	22	23	Lake	1	1
Livingston	21	21	Gogebic	1	1
Muskegon	17	19	Baraga	1	1
Mecosta	17	18	Luce	(a)	1
Leelanau	13	17	Schoolcraft	(a)	1
Grand Traverse	13	16	Roscommon	(a)	(a)
Oakland	14	15	Michigan[b]	1,791	1,885

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Less than $500,000.

b. Keweenaw and Crawford counties have no cash receipts reported.

TABLE XII-25. MICHIGAN COUNTIES RANKED ACCORDING TO 1977 CASH RECEIPTS FROM CROPS MARKETINGS: 1976 AND 1977

(Millions of dollars)

County	1976	1977	County	1976	1977
Saginaw	53	55	Livingston	7	7
Berrien	42	50	Mason	6	7
Tuscola	49	50	Mecosta	6	6
Huron	45	47	Arenac	6	6
Lenawee	41	42	Manistee	5	6
Van Buren	30	37	Antrim	5	6
Bay	35	36	Benzie	3	4
Monroe	33	35	Presque Isle	3	3
Gratiot	32	33	Dickinson	2	3
Sanilac	29	30	Gladwin	2	2
Kent	26	30	Delta	2	2
Allegan	26	29	Missaukee	2	2
Ottawa	24	27	Osceola	2	2
Montcalm	22	23	Menominee	1	2
Oceana	17	21	Clare	1	1
Lapeer	19	20	Alpena	1	1
Macomb	17	18	Ogemaw	1	1
Calhoun	17	18	Emmet	1	1
St. Joseph	17	18	Cheboygan	1	1
Eaton	17	17	Iron	1	1
Branch	16	17	Houghton	1	1
Ioria	16	17	Wexford	1	1
Hillsdale	16	17	Iosco	1	1
Kalamazoo	16	16	Chippewa	1	1
Ingham	15	16	Kalkaska	1	1
Washtenaw	14	15	Marquette	1	1
Cass	14	15	Charlevoix	1	1
Shiawassee	14	15	Otsego	1	1
Clinton	14	14	Alcona	1	1
Grand Traverse	10	14	Montmorency	(a)	(a)
St. Clair	13	13	Ontonagon	(a)	(a)
Leelanau	10	13	Lake	(a)	(a)
Newaygo	11	12	Luce	(a)	(a)
Jackson	12	12	Schoolcraft	(a)	(a)
Muskegon	9	11	Alger	(a)	(a)
Wayne	10	10	Mackinac	(a)	(a)
Oakland	9	10	Oscoda	(a)	(a)
Genesee	9	10	Roscommon	(a)	(a)
Isabella	9	9	Baraga	(a)	(a)
Midland	9	9	Gogebic	(a)	(a)
Barry	7	8	Michigan[b]	910	983

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Less than $500,000.

b. Keweenaw and Crawford counties have no cash receipts reports.

TABLE XII-26. MICHIGAN COUNTIES RANKED ACCORDING TO 1977 CASH RECEIPTS FROM LIVESTOCK AND LIVESTOCK PRODUCTS MARKETINGS: 1976 AND 1977

(Millions of dollars)

County	1976	1977	County	1976	1977
Huron	51	52	Ogemaw	5	6
Sanilac	48	49	Arenac	5	6
Allegan	43	43	Clare	5	5
Ottawa	38	38	Oakland	5	5
Lenawee	29	29	Delta	5	5
Clinton	28	29	Alpena	5	5
Ionia	25	26	Midland	4	5
Kent	24	25	Gladwin	4	4
Lapeer	24	24	Antrim	4	4
Isabella	24	24	Presque Isle	4	4
Cass	23	24	Leelanau	3	4
Ingham	23	23	Bay	3	3
Hillsdale	23	23	Iosco	3	3
Calhoun	22	23	Chippewa	3	3
Washtenaw	22	22	Charlevoix	3	3
Tuscola	21	21	Wexford	3	3
Gratiot	20	21	Grand Traverse	2	3
St. Clair	20	20	Alcona	2	2
Jackson	19	20	Emmet	2	2
Kalamazoo	18	19	Oscoda	2	2
St. Joseph	17	18	Dickinson	2	2
Branch	17	18	Houghton	2	2
Shiawassee	17	17	Montmorency	2	2
Barry	15	16	Cheboygan	2	2
Genesee	14	15	Mackinac	1	1
Montcalm	14	14	Ontonagon	1	1
Livingston	14	14	Alger	1	1
Van Buren	14	14	Otsego	1	1
Eaton	13	13	Wayne	1	1
Saginaw	13	13	Manistee	1	1
Newaygo	12	12	Benzie	1	1
Menominee	11	11	Gogebic	1	1
Mecosta	11	11	Lake	1	1
Missaukee	11	11	Marquette	1	1
Osceola	10	10	Baraga	1	1
Berrien	8	9	Iron	1	1
Monroe	8	8	Kalkaska	1	1
Muskegon	7	7	Schoolcraft	(a)	(a)
Macomb	7	7	Luce	(a)	(a)
Mason	6	6	Roscommon	(a)	(a)
Oceana	6	6	Michigan[b]	880	902

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Less than $500,000.

b. Keweenaw and Crawford counties have no cash receipts reported.

TABLE XII-27. NUMBER OF LICENSED VETERINARIANS IN MICHIGAN, BY COUNTY: 7 AUGUST 1979

County	Veterinarians	County	Veterinarians
Alcona	1	Lapeer	11
Alger	1	Leelanau	0
Allegan	16	Lenawee	18
Alpena	5	Livingston	27
Antrim	3	Luce	2
Arenac	2	Mackinac	2
Baraga	2	Macomb	65
Barry	9	Manistee	2
Bay	13	Marquette	5
Benzie	2	Mason	4
Berrien	25	Mecosta	7
Branch	11	Menominee	3
Calhoun	28	Midland	19
Cass	8	Missaukee	0
Charlevoix	5	Monroe	12
Cheboygan	4	Montcalm	5
Chippewa	4	Montmorency	1
Clare	6	Muskegon	12
Clinton	14	Newaygo	4
Crawford	2	Oakland	171
Delta	9	Oceana	3
Dickinson	5	Ogemaw	5
Eaton	14	Ontonagon	0
Emmet	9	Osceola	3
Genesee	55	Oscoda	0
Gladwin	1	Otsego	4
Gogebic	2	Ottawa	21
Grand Traverse	16	Presque Isle	3
Gratiot	9	Roscommon	4
Hillsdale	10	Saginaw	32
Houghton	3	Sanilac	16
Huron	12	Schoolcraft	2
Ingham	154	Shiawassee	15
Ionia	18	St. Clair	17
Iosco	6	St. Joseph	12
Iron	3	Tuscola	8
Isabella	6	Van Buren	8
Jackson	25	Washtenaw	40
Kalamazoo	52	Wayne	171
Kalkaska	2	Wexford	4
Kent	52	Out of state	680
Keweenaw	0	Out of country	14
Lake	0	Total	2,056

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XII-28. NUMBER OF LICENSED FORESTERS IN MICHIGAN BY COUNTY: 3 OCTOBER 1979

County	Foresters[a]	County	Foresters[a]
Alcona	0	Lapeer	0
Alger	2	Leelanau	1
Allegan	0	Lenawee	1
Alpena	7	Livingston	2
Antrim	1	Luce	7
Arenac	0	Mackinac	2
Baraga	10	Macomb	3
Barry	0	Manistee	3
Bay	0	Marquette	17
Benzie	4	Mason	1
Berrien	0	Mecosta	4
Branch	0	Menominee	1
Calhoun	0	Midland	4
Cass	0	Missaukee	3
Charlevoix	3	Monroe	0
Cheboygan	4	Montcalm	1
Chippewa	6	Montmorency	1
Clare	0	Muskegon	1
Clinton	2	Newaygo	1
Crawford	2	Oakland	6
Delta	11	Oceana	0
Dickinson	8	Ogemaw	1
Eaton	4	Ontonagon	2
Emmet	3	Osceola	0
Genesee	2	Oscoda	2
Gladwin	0	Otsego	4
Gogebic	8	Ottawa	2
Grand Traverse	7	Presque Isle	0
Gratiot	0	Roscommon	2
Hillsdale	0	Saginaw	4
Houghton	18	Sanilac	0
Huron	0	Schoolcraft	2
Ingham	20	Shiawassee	0
Ionia	1	St. Clair	1
Iosco	1	St. Joseph	0
Iron	5	Tuscola	0
Isabella	1	Van Buren	0
Jackson	6	Washtenaw	7
Kalamazoo	3	Wayne	5
Kalkaska	0	Wexford	3
Kent	5	Out of state	53
Keweenaw	1	Out of country	2
Lake	0	Total	294

SOURCE: Michigan Department of Licensing and Regulation, special release.
a: As of 3 October 1979.

TABLE XII-29. PULPWOOD PRODUCTION IN MICHIGAN'S UPPER AND LOWER PENINSULAS, BY SPECIES: 1977 AND 1978

Species[a]	1977			1978		
	Upper Peninsula	Lower peninsula	State total	Upper peninsula	Lower peninsula	State total
Aspen	310,011	298,421	608,432	331,491	340,716	672,207
Balsam fir	92,908	1,567	94,475	86,420	922	87,342
Birch	52,168	15,278	67,446	74,210	18,521	92,731
Maple	90,367	63,152	153,789	138,958	66,290	205,248
Oak	1,292	109,733	111,025	1,664	106,707	108,371
Other hardwoods	61,430	18,720	80,150	66,666	20,493	87,159
Cedar	6,663	0	6,663	6,112	0	6,112
Hemlock	62,013	63	62,076	48,158	255	48,413
Pine	130,492	132,205	262,697	136,067	143,720	279,787
Spruce	47,523	340	47,863	42,217	328	42,545
Tamarack	2,870	0	2,870	1,750	0	1,750
TOTAL ROUNDWOOD	858,007	639,479	1,497,486	933,713	697,952	1,631,665
Residues[b] used as pulpwood:						
Softwood	7,867	8,269	16,136	8,240	8,165	16,405
Hardwood	93,772	54,282	148,054	56,140	61,422	117,562
Total residues	101,639	62,551	164,190	64,380	69,587	133,967
TOTAL ALL PULPWOOD	959,646	702,025	1,661,676	998,093	767,539	1,765,632

SOURCE: Michigan Department of Natural Resources, special release.

a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.

b. Slabs, edgings, veneer cores, and so forth.

TABLE XII-30. PULPWOOD PRODUCTION IN MICHIGAN, BY SPECIES: 1971-1978

(Thousand standard cords)

Item[a]	1971	1972	1973	1974	1975	1976	1977	1978
Aspen	599	601	672	756	446	536	608	672
Balsam fir	53	60	68	74	74	75	94	87
Pine[b]	253	229	211	262	235	281	262	280
Spruce	45	38	46	40	45	32	47	43
Birch	23	36	59	85	36	69	67	93
Hemlock	42	50	58	53	50	79	62	48
Tamarack	2	3	5	2	2	1	3	1
Misc. hardwoods	208	326	376	228	221	333	352	407
Residue and chips	135	161	223	196	182	163	164	134
TOTAL	1,362	1,508	1,720	1,910	1,291	1,406	1,661	1,766

SOURCE: Michigan Department of Natural Resources, special release.
a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.
b. Includes white, red, and jack pine.

TABLE XII-31. SELECTED FISHERY STATISTICS FOR MICHIGAN: 1959-1978

Year	Commercial landings		Number of plants involved[b]	Value of mfd. fishery products ($000)
	Quantity (000 lbs)	Value[a] ($000)		
1959	22,323	2,681	115	3,469
1960	25,021	2,997	92	2,576
1961	24,535	2,931	67	4,104
1962	22,121	2,479	57	4,205
1963	20,326	2,323	66	3,900
1964	19,769	2,522	66	2,023
1965	19,748	2,757	66	2,587
1966	21,284	2,568	62	2,275
1967	29,221	2,846	64	2,357
1968	23,953	2,832	59	2,344
1969	21,948	2,723	56	4,578
1970	21,169	2,875	52	n.a.
1971	19,137	2,671	49	4,419
1972	14,213	2,985	47	8,801
1973	16,869	3,688	47	5,300
1974	15,454	3,926	47	n.a.
1975	12,256	3,653	46	n.a.
1976	14,438	4,145	44	n.a.
1977	11,626	3,275	n.a.	n.a.
1978	11,158	3,529	13	n.a.

SOURCE: National Oceanic and Atmospheric Administration, Fishery Statistics of the United States, 1959-1973 (Washington, D.C.: annually), Statistical Digest no. 67, p. 306 (1973), and Fisheries of the United States, 1977 (Washington, D.C.: 1978), Current Fishery Statistics, 7500, pp. 4, 80 (1978).
a. Amount paid to fishermen. b. Wholesale and mfg. firms only.
n.a.: not available.

XIII. MINING

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in mining are tabulated in the Census of Mineral Industries, where they are further classified on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development is in progress. Mineral processing, not in conjunction with extraction, is classified in manufacturing. A major difference between census statistics and those published by the U.S. Bureau of Mines and the Geological Survey Division of the Michigan Department of Natural Resources is the exclusion of cement manufacturing in the former and its inclusion in the latter. Another difference stems from the treatment of government-owned operations, such as gravel pits mined by county road crews. Census statistics would exclude those establishments, whereas the Bureau of Mines and the Geological Survey Division would not. For the most part, the Geological Survey Division and Bureau of Mines are interested in reporting mineral production, irrespective of mine ownership. Census statistics focus on the economic nature of establishments.

Companies with operations at more than one location must report separately for each establishment; the tabulations are based on these reports. Establishments not engaged in mineral extraction are classified in another industry. For example, the Michigan oil wells of an integrated petroleum company would be reported as a mineral establishment, but the refinery would be a manufacturing establishment, and company-operated retail or wholesale outlets for petroleum products would be classified in retail or wholesale trade. A mining establishment generally represents a unit operation even though there may be several pits, shafts, or wells. The operations of natural gas plants are included in mining inasmuch as these engage in separating hydrocarbons for use or further processing elsewhere. Establishments without paid employees and with shipments or expenditures totaling less than $500 were excluded.

The Bureau of Mines, U.S. Department of Interior, annually publishes Mineral Yearbook. A chapter entitled "The Mineral Industry of Michigan" is prepared in cooperation with the Geological Survey Division, Michigan Department of Natural Resources. The Geological Survey Division issues occasional releases dealing with Michigan's mineral industries. It also publishes Michigan's Oil and Gas Fields and a directory, Michigan Mineral Producers.

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TABLE XIII-1. VALUE OF MICHIGAN FUEL AND METALLIC AND NONMETALLIC MINERAL PRODUCTION: 1944-1979

(In thousands of dollars)

Year	Fuel	Metallic	Nonmetallic[a]	Total
1944	29,184	50,169	61,140	140,493
1945	28,607	43,545	55,894	128,046
1946	31,129	35,325	67,228	133,682
1947	37,847	56,943	75,479	170,269
1948	51,807	71,636	90,672	214,116
1949	48,082	65,102	94,403	207,608
1959	45,475	84,212	108,787	238,474
1951	40,279	90,279	127,052	257,530
1952	38,093	94,763	134,234	267,089
1953	37,333	105,236	145,125	287,693
1954	35,667	82,525	168,375	286,550
1955	33,623	145,380	192,354	371,357
1956	32,538	157,219	216,806	406,563
1957	31,785	144,235	230,790	406,810
1958	29,701	102,119	217,703	349,523
1959	33,719	97,363	254,240	385,322
1960	50,629	134,098	250,402	435,130
1961	62,144	125,956	255,164	443,263
1962	58,127	124,431	255,131	437,689
1963	58,099	155,277	272,208	485,583
1964	55,656	188,979	300,377	545,011
1965	54,685	204,241	30,875	526,801
1966	54,606	211,355	323,628	589,589
1967	53,371	207,975	334,104	595,449
1968	56,600	213,930	347,476	612,826
1969	55,580	248,945	354,904	659,445
1970	51,326	249,332	383,460	684,118
1971	49,292	226,325	380,166	655,783
1972	57,847	233,331	407,333	698,511
1973	80,194	276,526	460,230	816,950
1974	190,134	369,225	497,942	1,057,301
1975	327,456	425,201	492,695	1,245,352
1976	435,234	487,172	560,838	1,483,244
1977	506,965	418,667	612,088	1,537,719
1978[P]	594,802	619,568	589,668	1,804,038
1979[P]	884,768	691,368	770,562	2,346,698

SOURCE: Michigan Department of Natural Resources, special release

a. Includes cement, classified in manufacturing by the U.S. Bureau of the Census.

P: Preliminary.

TABLE XIII-4. VALUE OF MINERALS PRODUCED IN MICHIGAN, BY COUNTY: 1974-1977

(In thousands of dollars)

County	1974	1975	1976	1977
Alcona	134	124	187	46
Alger	88	77	207	44
Allegan	1,824	2,476	2,292	2,295
Alpena	66,819	61,659	66,941	78,411
Antrim	786	3,697	3,401	5,397
Arenac	2,271	2,638	2,831	3,229
Baraga	126	110	183	271
Barry	845	808	872	999
Bay	11,630	11,807	13,112	13,789
Benzie	23	33	35	385
Berrien	4,487	4,691	5,095	7,050
Branch	355	488	217	437
Calhoun	11,772	17,920	22,016	24,915
Cass	1,046	1,358	987	1,188
Charlevoix	19,506	21,278	28,074	29,318
Cheboygan	179	188	166	206
Chippewa	5,903	5,203	6,129	7,029
Clare	3,107	3,931	3,751	4,029
Clinton	1,132	1,805	1,488	1,905
Crawford	5,689	9,737	11,573	14,241
Delta	223	581	621	597
Dickinson	40,009	49,768	55,526	63,289
Eaton	2,387	4,980	8,202	9,427
Emmet	13,959	16,025	15,968	16,865
Genesee	692	430	505	670
Gladwin	2,182	2,558	2,736	2,988
Gogebic	162	249	158	242
Grand Traverse	12,274	36,121	66,929	97,816
Gratiot	8,398	11,667	11,114	10,243
Hillsdale	15,216	17,619	16,388	16,832
Houghton	332	1,375	2,839	298
Huron	1,754	1,800	1,746	1,957
Ingham	20,746	29,598	29,809	29,722
Ionia	397	627	407	200
Iosco	6,556	5,569	9,728	9,794
Iron	6,668	3,232	4,276	5,358
Isabella	1,905	1,918	1,917	2,494
Jackson	6,804	6,991	6,833	6,807
Kalamazoo	6,210	1,452	1,668	2,086
Kalkaska	36,919	60,218	59,719	59,101
Kent	6,011	5,035	5,369	15,858
Keweenaw	23	31	36	47

TABLE XIII-4. VALUE OF MINERALS PRODUCED IN MICHIGAN, BY COUNTY: 1974-1977 (cont.)

(In thousands of dollars)

County	1974	1975	1976	1977
Lake	777	973	960	1,087
Lapeer	3,750	2,831	3,654	4,063
Leelanau	371	299	211	218
Lenawee	984	1,043	1,021	1,148
Livingston	4,247	4,372	4,128	4,310
Luce	44	104	106	120
Mackinac	14,098	12,232	13,354	10,655
Macomb	3,206	2,378	2,547	4,615
Manistee	39,297	61,271	125,181	163,705
Marquette	213,496	288,303	369,226	303,429
Mason	58,968	57,896	68,837	76,944
Mecosta	972	850	772	903
Menominee	46	174	359	118
Midland	42,545	38,171	31,613	33,218
Missaukee	6,394	7,565	7,489	7,316
Monroe	28,925	23,537	33,132	35,185
Montcalm	1,082	1,140	1,244	1,808
Montmorency	152	5	641	83
Muskegon	3,388	2,735	3,811	3,824
Newaygo	375	559	205	247
Oakland	17,739	16,440	18,497	20,791
Oceana	615	1,541	1,286	3,105
Ogemaw	4,465	6,133	6,729	7,025
Ontonagon	111,470	96,448	58,202	61,327
Osceola	3,510	4,583	3,464	2,531
Oscoda	56	55	105	50
Otsego	38,393	68,342	78,706	82,613
Ottawa	6,431	5,269	5,633	5,159
Presque Isle	31,328	30,147	32,826	35,560
Roscommon	3,130	4,113	4,439	4,180
Saginaw	2,715	2,350	1,945	2,034
St. Clair	30,729	40,996	47,488	41,314
St. Joseph	571	540	490	847
Sanilac	1,996	2,931	1,744	3,158
Schoolcraft	1,113	1,775	1,423	1,774
Shiawassee	1,202	952	1,370	2,384
Tuscola	2,234	2,456	3,063	3,214
Van Buren	706	451	338	566
Washtenaw	2,248	2,832	2,792	3,347
Wayne	69,552	76,795	83,986	85,638
Wexford	1,016	3,176	6,542	10,510
Various	193	574		
MICHIGAN	1,057,301	1,283,212	1,485,646	1,538,066

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers, 1975 through 1978 (Lansing: annually), Table 3 (1977).

TABLE XIII-5. NUMBER OF ACTIVE MINES, SHIPMENTS, AND AVERAGE NUMBER OF MEN EMPLOYED IN IRON ORE MINING IN MICHIGAN: 1947-1979

Year	Number of active mines	Shipments by range (thousands of long tons)			Employment
		Marquette	Menominee	Gogebic	
1947	36	5,543	3,668	3,710	6,227
1948	34	4,898	4,086	3,915	6,312
1949	36	4,253	3,587	3,156	6,151
1950	37	4,955	4,144	3,827	6,809
1951	37	5,647	4,708	3,319	6,908
1952	37	4,517	4,278	3,004	6,972
1953	40	5,572	4,621	3,188	6,534
1954	39	3,675	3,670	2,378	6,625
1955	37	6,640	5,326	3,183	6,093
1956	36	5,689	3,889	2,958	6,209
1957	36	5,993	4,297	2,837	6,311
1958	32	3,722	3,095	1,394	4,912
1959	27	3,530	2,478	1,251	4,163
1960	27	4,945	4,121	1,890	4,725
1961	24	4,183	3,886	1,362	3,466
1962	21	4,500	3,462	1,480	2,857
1963	19	5,850	4,304	813	3,586
1964	16	7,945	4,624	1,403	3,912
1965	16	8,925	4,361	773	3,775
1966	15	9,660	4,328	364	3,690
1967	12	10,165	3,630	239[a]	3,430
1968	11	9,367	3,449	0	3,090
1969	11	11,163	3,390	0	3,061
1970	7	10,336	2,925	0	2,798
1971	7	9,331	2,834	0	2,425
1972	6	9,251	2,577	0	2,226
1973	6	9,941	2,374	0	2,322
1974	6	9,009	2,522	0	2,548
1975	6	12,143	2,235	0	2,949
1976	6	13,362	2,326	0	3,032
1977	6	9,683	2,332	0	3,344
1978	6	15,934	2,252[b]	0	3,294
1979	5	14,993[c]	2,358	0	3,083

SOURCE: Michigan Department of Natural Resources, Geological Survey Division, special release.

a. Peterson mine permanently closed January 1967. Stockpile shipments completed in 1967.

b. Sherwood mine closed July 1978, shipments continued through 1979.

c. Mather mine closed July 1979, shipments continued through 1979.

TABLE XIII-6. PRODUCTION AND SHIPMENTS OF PORTLAND AND MASONRY CEMENT FROM MICHIGAN MILLS: 1947-1979

Year	Number of plants	Production (barrels)	Shipments (barrels)	Value of shipments
1947	7	10,211,809	10,470,766	$18,868,137
1948	7	11,410,085	11,117,000	23,533,000
1949	7	12,767,500	12,747,791	28,823,055
1950	7	12,967,102	12,854,423	29,619,766
1951	7	14,393,599	14,112,639	35,121,324
1952	7	14,790,587	14,760,783	35,819,041
1953	7	15,532,853	15,853,096	41,860,465
1954	7	16,671,383	16,711,710	45,691,867
1955	7	18,204,827	19,738,400	58,048,378
1956	8	10,327,814	21,880,222	67,798,262
1957	8	21,015,000	22,045,034	71,605,137
1958	8	19,841,000	20,911,990	70,432,501
1959	8	21,561,000	23,025,928	77,323,974
1960	9	20,971,000	22,351,498	77,694,087
1961	9	21,661,000	23,462,554	79,638,973
1962	9	23,070,000	24,198,903	77,601,954
1963	9	24,194,000	26,694,665	81,446,667
1964	9	26,802,000	28,133,856	89,270,172
1965	8	27,018,000	29,135,052	92,369,052
1966	8	28,848,000	29,683,903	92,634,187
1967	9	31,350,682	31,131,016	90,810,328
1968	9	32,779,308	32,868,574	104,684,405
1969	9	31,982,736	31,790,616	103,897,422
1970	9	31,982,091	32,318,659	110,513,273
1971	9	33,723,094	33,750,455	109,833,119
1972	9	32,717,784	32,719,919	117,368,094
1973	9	33,781,604	34,515,369	129,627,462
1974	8	n.a.	32,552,275	146,822,510
1975	8	n.a.	25,581,964	138,356,710
1976	8	28,358,195	27,388,260	153,751,000
1977	8	5,815,974[a]	5,796,698[a]	175,458,343
1978[P]	7	6,210,009[a]	6,189,337[a]	225,402,230
1979[P]	7	5,240,000[a]	n.a.	218,608,000

SOURCE: Michigan Department of Natural Resources, special release.

NOTE: one barrel = 376 pounds or 0.188 short tons.

a. Short tons.

P: Preliminary.

n.a.: not available.

TABLE XIII-2. VALUE OF MICHIGAN MINERAL PRODUCTION, BY PRODUCT: 1972-1979

(In thousands of dollars)

Mineral	1972	1973	1974	1975	1976	1977	1978[p]	1979[p]
Iron ore	165,370	180,158	257,944	340,852	427,339	357,565	568,662	607,200
Cement	117,368	129,627	146,823	138,357	153,751	176,701	194,034	218,608
Petroleum	41,568	59,573	154,952	262,352	329,637	360,995	427,881	614,171
Sand & gravel	54,445	74,231	82,710	73,397	78,372	97,503	103,000	125,000
Nat. salines[a]	104,672	121,086	112,350	116,876	124,122	138,712	142,831	169,336
Copper	66,783	94,193	108,761	82,093	59,113	59,115	49,071	79,195
Salt	50,761	53,732	62,055	67,240	79,740	78,864	83,979	86,243
Stone[b]	32,770	40,768	47,625	46,461	63,517	66,331	n.a.	97,889
Lime	22,647	26,055	30,036	36,540	39,686	42,015	46,764	42,279
Nat. gas	12,420	17,306	35,182	65,104	106,739	145,970	166,921	270,597
Gypsum (crude)[c]	7,267	8,538	7,258	5,936	8,760	10,769	13,460	18,300
Clay & shale[d]	3,715	3,304	4,074	3,580	4,741	5,126	n.a.	7,357
Nat. gas liquids[e]	3,859	3,314	(f)	(f)	(f)	(f)	(f)	(f)
Peat	2,190	2,172	3,810	3,206	3,714	4,754	4,750	5,540
Silver	(g)	(g)	(g)	2,256	1,223	1,987	1,835	4,973
Marl	81	79	258	153	156	63	n.a.	n.a.
Miscellaneous	1,595	2,811	3,463	872	936	856	850	850
TOTAL	698,511	816,950	1,057,301	1,245,274	1,483,244	1,537,621	1,804,038	2,346,698

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually), and special release.

NOTE: 1977 and 1978 totals adjusted to avoid double counting: stone used in the manufacture of cement and lime in Michigan; sandstone crushed to manufacture industrial sand; and shale, clay, gypsum, and sand used in cement manufacturing in Michigan.

a. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.

b. Does not include limestone and dolomite used in the manufacture of cement and lime (1976 only that used within Michigan has been deducted).

c. 1976 value of gypsum used in Michigan to manufacture cement has been deducted.

d. Title brick, pottery, clay used for cement, lightweight aggregate, and miscellaneous. (1976 value used in Michigan for cement has been deducted).

e. Includes liquids stripped from gas delivered via interstate pipeline.

f. Included in petroleum and natural gas according to Proration Unit.

g. Included in miscellaneous.

p. Preliminary

n.a.: not available.

TABLE XIII-3. QUANTITY OF SELECTED MINERALS PRODUCED IN MICHIGAN: 1973-1979

Minerals	Units of measurement	1973	1974	1975	1976	1977	1978[p]	1979[p]
Iron ore	1,000 long tons[a]	12,314	11,531	14,043	15,688	12,016	17,018	17,351
Cement	1,000 short tons[b]	6,489	6,120	4,809	5,331	5,816	5,663	5,240
Petroleum	1,000 barrels (42 gal.)	14,530	18,102	24,420	30,421	32,965	34,667	35,428
Sand & gravel	1,000 short tons	62,555	60,073	47,051	47,318	46,606	47,000	50,000
Nat. salines[c]	1,000 short tons	1,107	1,407	1,085	1,193	1,267	n.a.	n.a.
Copper	1,000 pounds	151,779	131,038	147,380	86,930	85,961	78,301	87,470
Salt	1,000 short tons	4,818	4,445	3,895	4,189	3,947	4,056	3,249
Stone[d]	1,000 short tons	26,954	28,140	23,820	41,418	40,529	41,908	37,351
Lime	1,000 short tons	1,545	1,528	1,434	1,456	1,347	1,272	1,018
Natural gas	1,000 thou. cu. ft.	43,704	69,806	102,664	120,250	133,227	150,535	161,708
Gypsum (crude)	1,000 short tons	1,882	1,482	1,224	1,837	1,924	2,176	2,600
Clay & shale[e]	1,000 short tons	2,151	2,161	1,818	1,934	2,007	2,122	2,112
Natural gas liquids[f]	1,000 gallons	48,742	55,230	218,888	(g)	(g)	(g)	(g)
Peat	1,000 short tons	232	244	245	300	291	245	275
Silver	1,000 fine oz.	654	537	632	289	447	354	475
Marl	1,000 short tons	73	151	85	66	29	n.a.	n.a.

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually), and special release.

a. Long tons (2,240 pounds).
b. Short tons (2,000 pounds).
c. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.
d. Does not include limestone and dolomite used in the manufacture of cement and lime prior to 1976.
e. Tile brick, pottery, clay used for cement, lightweight aggregate, and miscellaneous.
f. Includes liquids stripped from gas delivered via interstate pipeline.
g. Natural gas liquids are figured into petroleum and natural gas production.
p: Preliminary
n.a.: not available.

TABLE XIII-7. COPPER PRODUCTION IN MICHIGAN, BY COUNTY: 1947-1979

(In pounds)

Year	Houghton	Keweenaw	Ontonagon	Total
1947	29,478,214	17,102,786	473,473	47,054,473
1948	30,742,279	23,567,382	124,381	54,434,042
1949	21,068,020	17,430,147	0	38,498,167
1950	24,275,530	27,499,933	12,554	51,788,017
1951	21,233,634	28,063,771	459	49,297,864
1952	19,395,760	23,657,231	886,313	43,939,304
1953	19,779,610	27,237,107	982,973	47,999,690
1954	19,902,724	23,805,586	1,078,493	44,786,803
1955	17,751,476	17,534,792	59,910,911	95,197,179
1956	21,399,846	25,267,891	76,612,498	123,280,235
1957	21,781,882	22,843,409	69,021,852	113,647,143
1958	16,345,030	23,886,930	81,827,063	122,059,023
1959	20,689,233	22,730,365	69,661,935	113,081,533
1960	21,704,276	18,592,215	75,142,046	115,438,537
1961	20,175,410	18,337,000	103,756,178	142,268,588
1962	24,072,160	13,075,067	106,613,451	143,760,678
1963	22,879,603	13,000,730	113,900,191	149,780,524
1964	19,818,237	9,507,806	108,458,751	137,784,794
1965	15,759,103	6,414,944	123,743,392	145,917,439
1966	17,433,796	8,128,529	121,181,717	146,744,040
1967	16,695,626	7,763,357	92,731,257	117,190,240
1968	6,592,118	4,696,188	137,092,516	148,380,322
1969	0	0	149,952,283	149,952,283
1970	0	0	135,086,800	135,086,800
1971	0	0	112,155,147	112,155,147
1972	0	0	131,937,378	131,937,378
1973	0	0	151,678,939	151,678,939
1974	0	0	131,037,602	131,037,602
1975	1,455,657	0	140,819,850	142,275,507
1976	3,886,218	0	83,044,081	86,930,299
1977	0	0	85,960,551	85,960,551
1978	0	0	78,301,136	78,301,136
1979	0	0	87,469,886	87,469.886

SOURCE: Michigan Department of Natural Resources, special release.

TABLE XIII-8. CONSTRUCTION AGGREGATE AND INDUSTRIAL SAND SOLD OR USED IN MICHIGAN, BY MAJOR USE CATEGORY: 1978

(In thousands of short tons and thousands of dollars)

Category	Quantity	Value[a]
Construction aggregate		
Concrete aggregate (residential, nonresidential, highways, bridges, dams, waterworks, airports, and so forth)	13,777	$ 28,857
Concrete products (cement blocks, bricks, pipe, and so forth)	2,053	4,356
Asphaltic concrete aggregates and other bituminous mixtures	5,329	9,115
Road bases and coverings	14,482	26157
Fill	5,549	6,959
Other uses	1,644	3,495
TOTAL[b]	42,834	78,939

SOURCE: U.S. Bureau of Mines tabulations.
NOTE: Includes processed and unprocessed sand and gravel.
a. Values f.o.b. plant of blended processed sand and gravel used as construction aggregate. Unit value of construction aggregate is generally higher than the unit value of unblended processed sand or gravel.
b. Totals may not add due to rounding.

TABLE XIII-9. INDUSTRIAL SAND AND GRAVEL SOLD OR USED IN MICHIGAN, BY PRODUCER AND USE: 1978

(In thousands of short tons and thousands of dollars)

Use	Quantity	Value
Molding	4,826	$ 23,317
Engine	16	143
Blast	7	80
Other[a]	579	5,094
TOTAL[b]	5,428	28,635

SOURCE: U.S. Bureau of Mines tabulations.
a. Includes sand and gravel used for grinding and polishing, foundry, filtration, glass, and other uses.
b. Totals may not add due to rounding.

TABLE XIII-10. STONE SOLD OR USED BY MICHIGAN PRODUCERS, BY KIND AND BY USE: 1977 AND 1978

Kind and use	1977 Quantity (1,000) short tons	1977 Value ($1,000)	1978 Quantity (1,000) short tons	1978 Value ($1,000)
		Kind		
Dimension[a]	8	147	8	155
Crushed and broken				
Limestone and dolomite	39,489	80,725	40,100	90,937
Marl	22	67	26	59
Sandstone	(D)	(D)	(D)	(D)
Traprock	(D)	(D)	(D)	(D)
Other[b]	1,005	4,179	550	3,428
TOTAL[c]	40,517	84,971	40,684	94,615
		Use[d]		
Lime manufacture[e]	10,630	21,810	9,389	21,543
Flux stone	9,422	21,490	10,660	27,499
Cement manufacture	8,314	15,160	6,997	12,851
Concrete aggregate	4,444	8,248	4,732	9,336
Roadstone	2,540	5,273	2,113	5,386
Bituminous aggregate	1,231	2,480	1,897	4,799
Dense graded roadbase stone	1,126	2,547	946	2,205
Macadam aggregate	(D)	(D)	(D)	(D)
Agricultural limestone	430	923	512	1,164
Riprap and jetty stone	370	722	174	363
Railroad ballast	266	533	311	745
Surface treatment aggregate	125	304	120	311
Soil conditioner	22	67	26	59
Other uses[f]	1,600	5,410	2,802	8,203
TOTAL[c]	40,520	84,970	40,676	94,460

SOURCE: U.S. Bureau of Mines, special release.

a. Includes limestone, dolomite, and sandstone.
b. Includes sandstone and traprock withheld.
c. Data may not add to totals shown because of independent rounding.
d. Crushed stone only.
e. Includes stone used in chemical stone for alkali work, sugar refining, and dead-burned dolomite (1977).
f. Includes stone used for refractory stone, glass manufacturing, mineral food, paper manufacturing, filter stone, terrazzo and exposed aggregate, manufactured fine aggregate, deadburned dolomite, chemical stone, sugar manufacturing, and uses indicated by symbol (D).
(D): Withheld to avoid disclosing data for individual companies. Included with other uses.

TABLE XIII-11. PERMITS TO DRILL, AND OIL AND GAS WELL COMPLETIONS IN MICHIGAN: 1947-1978

Year	Permits issued	Classification of well completions					
		Oil wells	Gas wells	Service wells OBS-GS[a]	Service wells BDW-LPG[b]	Dry holes	Total completions
1947	886	318	43	147	0	387	896
1948	918	371	32	17	0	437	917
1949	999	439	22	73	0	473	1,007
1950	901	336	28	47	0	473	884
1951	744	227	20	43	1	466	757
1952	694	261	30	51	2	370	714
1953	824	258	18	110	1	360	747
1954	573	214	15	2	2	338	571
1955	484	204	13	1	1	291	510
1956	476	196	12	28	0	227	463
1957	461	176	40	35	3	207	461
1958	481	166	20	36	4	227	453
1959	727	257	47	72	4	272	652
1960	904	372	19	79	1	441	912
1961	849	207	57	74	3	376	817
1962	711	148	62	53	4	474	741
1963	704	135	72	56	2	384	650
1964	583	82	48	126[c]	0	376	632
1965	494	53	34	106	0	291	485
1966	430	56	45	11	2	290	404
1967	405	69	38	26	0	287	420
1968	378	70	12	30[d]	6	251	369
1969	379	73	9	26	0	239	347
1970	425	50	16	108	3	211	388
1971	425	83	31	83	13	186	396
1972	423	84	38	62	4	186	374
1973	445	81	47	66	2	173	369
1974	503	134	61	52	2	235	484
1975	653	167	40	38	0	330	571
1976	645	120	57	50	0	333	560
1977	692	136	70	44	6	341	597
1978	690	146	57	60	14	325	602

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1947 through 1978 (Lansing: annually), pp. 4, 14 (1978).

a. OBS-GS: wells used for gas storage or observation.
b. LPG injection and extraction wells in liquified petroleum gas storage facilities and brine disposal wells.
c. Includes three brine disposal wells, one water injection well, and one geological information test.
d. Includes two water injection wells and one brine disposal well.

TABLE XIII-12. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1977 AND 1978

County	1977				1978			
	Total well footage		Average well depth[a]	Total wells drilled	Total well footage		Average well depth	Total wells drilled
	Exploratory	Developmental			Exploratory	Developmental		
Allegan	20,667	11,985	2,512	13	6,454	11,721	3,029	6
Alpena	3,895	4,263	4,079	2	0	0	0	0
Antrim	20,624[b]	13,536	6,832	5	2,364	0	2,364	1
Arenac	6,215	0	3,105	3	6,103	0	6,103	2
Barry	0	0	0	0	0	0	0	0
Bay	3,375	11,016	4,797	3	0	0	0	0
Benzie	22,173	5,976	5,630	5	0	0	0	0
Berrien	0	0	0	0	0	0	0	0
Branch	14,690	0	3,673	4	0	0	0	0
Calhoun	50,272	31,088	3,206	26	41,483	60,882	3,530	29
Cass	0	6,265	724	9	2,536	5,390	881	9
Cheboygan	4,368	3,950	4,159	2	44,993	8,700	3,835	14
Chippewa	1,204	0	1,204	1	0	0	0	0
Clare	3,994	12,245	3,927	5	5,315	56,758	5,203	12
Crawford	15,018	59,246	6,552	12	7,168	61,371	5,712	12
Eaton	30,592	19,214	3,831	13	22,368	16,166	3,853	10
Gladwin	0	0	0	0	0	9,003	4,573	2
Grand Traverse	371,292	254,298	5,847	107	231,908	242,766	5,789	82
Gratiot	3,248	0	1,646	4	0	0	1,090	3
Hillsdale	4,206	85,136	4,061	22	12,401	44,852	3,817	15
Huron	4,900	0	4,900	1	0	0	0	0
Ingham	7,802	12,549	4,070	5	27,466	19,686	3,904	15
Ionia	0	0	0	0	0	0	0	0
Isabella	7,799	0	3,006	3	17,172	6,764	2,992	8
Jackson	4,786	4,420	4,603	2	5,686	0	5,686	1

TABLE XIII-12. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1977 AND 1978 (cont.)

County	1977				1978			
	Total well footage		Average well depth[a]	Total wells drilled	Total well footage		Average well depth	Total wells drilled
	Exploratory	Developmental			Exploratory	Developmental		
Kalamazoo	0	0	0	0	3,000	0	3,000	1
Kalkaska	191,159	75,079	6,494	41	209,233	124,190	6,412	52
Kent	0	0	3,988	1	0	0	0	0
Lake	0	0	3,910	1	0	0	3,949	2
Lapeer	0	0	0	0	0	0	0	0
Lenawee	11,802	0	3,934	3	0	0	0	0
Livingston	31,661	0	5,277	6	18,059	0	3,612	5
Macomb	44,456	40,951	3,423	29	10,213	20,867	3,453	9
Manistee	210,527	166,834	4,475	85	127,993	229,448	4,441	81
Mason	13,514	15,189	4,100	7	12,000	6,963	4,741	4
Mecosta	7,551	2,778	1,660	25	3,916	0	1,726	8
Midland	4,075	0	4,075	1	7,727	6,946	3,668	4
Missaukee	15,199	17,018	4,037	9	5,250	82,677	5,116	18
Montcalm	3,251	0	1,646	7	3,136	16,896	1,431	14
Montmorency	16,123	0	5,225	5	33,194	0	4,792	7
Muskegon	0	5[c]	0	0	0	0	0	0
Newaygo	0	8,063	2,147	5	3,314	1,131	1,624	5
Oakland	33,452	7,834	3,753	11	21,568	17,900	3,947	10
Oceana	1,339	8,744	2,521	4	15,933	0	3,983	4
Ogemaw	17,483	21,918	5,582	11	0	24,828	2,767	14
Osceola	7,719	7,056	3,069	5	0	0	3,038	4
Otsego	142,295	75,552	5,586	39	134,712	42,744	5,230	37
Ottawa	56[b]	0	0	0	0	0	0	0
Presque Isle	68,370	12,742	3,380	4	99,366	3,383	3,21[illegible]	32
Roscommon	4,435	13,145	4,395	4	0	9,585	4,653	3

TABLE XIII-12. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1977 AND 1978 (cont.)

County	1977 Total well footage				1978 Total well footage			
	Exploratory	Developmental	Average well depth[a]	Total wells drilled	Exploratory	Developmental	Average well depth	Total wells drilled
Saginaw	0	0	0	0	2,952	0	2,952	1
Sanilac	0	0	0	0	2,356	0	2,356	1
Shiawassee	0	0	0	0	0	0	0	0
St. Clair	12,432	6,149	2,956	7	19,760	7,107	4,025	37
St. Joseph	11,342	0	3,782	3	2,233	0	1,122	2
Tuscola	0	21,654	3,609	6	3,880	21,284	3,595	7
Van Buren	0	2,386	1,193	2	0	0	1,671	4
Washtenaw	0	0	0	0	16,918	0	3,384	5
Wexford	15,448	30,145	5,066	9	19,168	36,503	6,186	9
TOTAL	1,474,814	1,068,429		597	1,216,888	1,180,738		602

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1977 and 1978 (Lansing: annually), Table 1 (1978).

a. In some cases average well depth includes facility footage credited to old wells drilled deeper as well as exploratory footage and/or developmental footage.

b. Includes some exploratory footage credited to old wells drilled deeper.

c. Includes some development footage credited to old wells drilled deeper.

TABLE XIII-13. STATE OF MICHIGAN REVENUE FROM OIL AND NATURAL GAS PRODUCTION: 1927-1978

Years	Royalty	Rental	Bonus	Application, assignment fees	Total income
1927-1931	$ 85,263	$ 43,822	$ 27,707	$ 1,204	$ 157,996
1932-1936	209,126	205,350	87,211	4,506	506,193
1937-1941	1,302,356	724,330	515,706	7,367	2,549,759
1942-1946	1,645,462	2,021,513	601,065	3,759	4,271,800
1947-1951	1,813,632	2,256,914	1,307,470	4,398	5,382,414
1952-1956	2,727,410	1,989,343	257,187	3,028	4,976,968
1957-1961	1,879,927	769,594	475,841	3,702	3,129,064
1962-1966	1,259,162	1,476,950	409,809	4,982	3,150,903
1967	250,785	199,399	49,192	1,126	500,501
1968	324,934	451,117	1,223,971	2,849	2,002,870
1969	404,709	819,550	894,133	872	2,119,264
1970	429,796	929,596	-132	736	1,359,996
1971	749,815	858,360	1,361	426	1,609,962
1972	944,441	831,057	10,165,151	2,854	11,943,502
1973	1,960,854	1,261,208	3,133	1,658	3,226,852
1974	5,814,636	1,280,109	7,131,732	2,248	14,228,725
1975	9,637,835	1,297,691	514,248	2,603	11,452,378
1976	13,293,209	1,328,660	524,973	616	15,147,458
1977	13,327,908	1,190,620	357,006	3,069	14,878,603
1978	18,244,756	1,131,238	14,483	1,733	19,392,210

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978 (Lansing: 1979), p. 66.

TABLE XIII-14. NATURAL GAS PLANT OPERATIONS IN MICHIGAN, BY PLANT OR FIELD: 1978

Plant or field	Total input (Mcf.)	Sales to pipe line (Mcf.)	Liquefied petroleum gas recovery (gallons)
Albion-Scipio	7,414,393	5,287,106	21,712,632
Aurelius	5,839,133	4,850,162	12,157,657
Beaver Creek	345,548	156,797	62,300
Chester	716,283	582,657	1,821,369
Columbus, Section 3	784,828	0	2,611,576
Convis	307,191	232,231	235,154
Hamilton[a]	115,802	50,217	187,488
Kalkaska (Amoco)	42,599,684	39,769,749	58,704,064[b]
Kalkaska (Shell)	84,981,727	69,649,879	320,611,452[b]
Leonard	2,040,842	1,690,564	1,563,450
Loreed	12,252,999	11,849,319	4,460,995
TOTAL	157,398,430	134,118,678	424,128,137

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978 (Lansing: 1979), Table 6.

NOTE: This table is the record of plants which are serving oil field operations, or which are extracting natural gas liquids from designated dry gas sources.

a. Receives and processes oil well gas only.

b. These LPG figures include stabilized condensate.

XIV. CONSTRUCTION

There have been two censuses of construction industries since 1939, one for 1967 and another for 1972. Current law authorizes the U.S. Bureau of the Census to canvass the nation's industrial and business establishments at five-year intervals (for years ending in 2 and 7). These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: those primarily engaged in contract construction (general contractors or special trade contractors such as plumbing and electrical work), in construction for sales on their own account (operative builders), or in subdividing real property into lots (subdividers and developers, except cemeteries).

A construction establishment is a place of business from which such activities as estimating, bidding, scheduling, purchasing, supervision, and so forth, are conducted irrespective of the locations of construction sites that are not separate establishments in and of themselves. A construction concern engaging in two or more distinctly different lines of economic activity, such as wholesaling or retailing, reports on each separately, provided that each activity is of substantial size and that separate records are available or can be estimated for the activity.

Construction firms are divided into those with payroll and those without. The former were queried in a census survey as to whether they were large, medium, or small. Nonemployers were not required to complete a Census of Construction Industries questionnaire; instead, the Census Bureau obtained relevant information from administrative records of other agencies.

Data from the 1977 Census of Construction Industries likely will be available in time for the 1981 edition of the Michigan Statistical Abstract. Tables XIV-1, XIV-2, and XIV-3 from the 1979 edition do not appear here since the figures had become dated.

Current data on construction activity are available in two Census Bureau publications. Construction Reports and Construction Review. Demolition statistics have been published in Construction Reports since 1969. The F. W. Dodge Company also reports on construction activity.

Union scales for construction crafts are reported annually in a bulletin published by the U.S. Bureau of Labor Statistics.

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TABLE XIV-1. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in contract construction			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Midland	17.84	97,701	18.83	112,888
Kalkaska	19.89	6,821	18.76	7,303
Alcona	(D)	(D)	15.40	2,592
Cheboygan	12.02	7,600	13.03	9,390
Montmorency	13.84	2,153	11.78	2,394
Benzie	12.18	3,778	11.74	4,160
Iron	10.06	4,156	11.34	4,924
Leelanau	11.59	3,420	10.97	3,680
St. Clair	8.50	41,549	9.81	55,077
Chippewa	7.23	8,462	9.60	9,209
Emmet	8.95	8,809	9.51	10,603
Grand Traverse	9.76	26,662	9.41	30,485
Missaukee	7.71	1,342	9.15	1,988
Dickinson	9.50	12,183	9.10	13,558
Oscoda	9.83	1,243	9.10	1,329
Ottawa	6.65	43,337	9.08	71,637
Houghton	8.74	9,560	8.62	10,111
Van Buren	9.17	16,149	8.43	17,715
Lake	4.77	896	8.42	1,023
Mackinac	(D)	(D)	8.25	3,758
Ogemaw	7.00	2,785	7.85	3,563
Gladwin	7.37	2,342	7.78	2,887
Clare	6.23	2,877	7.55	4,143
Otsego	6.71	4,139	7.38	5,462
Oakland	7.13	462,721	7.37	564,129
Mason	7.17	6,699	7.24	7,764
Livingston	7.29	14,361	7.23	17,516
Charlevoix	5.43	3,992	7.17	6,084
Clinton	7.29	6,744	7.02	7,996
Marquette	6.14	21,169	6.65	27,459
Muskegon	5.36	41,957	6.46	57,410
Antrim	6.54	2,748	6.44	3,387
Baraga	5.44	1,570	6.37	2,049
Eaton	6.25	10,029	6.14	11,198
Monroe	5.40	22,496	6.08	28,147

TABLE XIV-1. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in contract construction			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Kent	5.58	148,720	5.99	188,088
Alpena	5.47	7,787	5.86	9,508
Menominee	6.07	5,033	5.62	5,459
Bay	6.29	33,808	5.56	32,330
Roscommon	5.27	1,834	5.38	2,082
Isabella	4.49	8,079	5.37	10,962
Kalamazoo	5.29	69,479	5.28	78,885
Macomb	4.77	183,815	5.14	229,947
Branch	5.75	10,411	4.92	10,433
Lapeer	3.96	7,387	4.75	10,174
Crawford	4.16	1,127	4.66	1,401
Berrien	4.68	41,279	4.55	44,972
Ingham	4.03	88,439	4.53	116,755
Delta	4.23	6,441	4.44	7,392
Jackson	4.07	31,845	4.30	38,692
Allegan	4.03	8,688	4.27	10,894
Iosco	4.29	4,304	4.24	5,013
Manistee	4.18	3,513	4.21	4,058
Shiawassee	3.93	7,473	4.19	9,138
Mecosta	4.16	3,647	4.06	4,084
Tuscola	3.92	6,380	4.01	7,712
Calhoun	3.67	32,299	3.87	37,709
Saginaw	3.57	54,300	3.78	65,440
Montcalm	3.78	6,067	3.74	6,831
Barry	3.66	3,978	3.71	4,651
Wexford	3.81	3,766	3.69	4,190
St. Joseph	3.39	7,906	3.65	9,864
Osceola	3.31	1,746	3.59	2,157
Oceana	3.49	1,602	3.50	1,856
Huron	3.60	4,819	3.44	5,617
Wayne	3.26	611,624	3.34	703,596
Cass	3.21	4,570	3.29	5,472
Sanilac	3.15	3,869	3.26	4,798
Newaygo	3.62	2,721	3.26	3,005
Alger	3.99	815	3.26	952

TABLE XIV-1. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN CONTRACT CONSTRUCTION, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in contract construction			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Genesee	3.00	101,698	3.25	126,074
Hillsdale	3.24	4,800	3.24	5,644
Gratiot	3.24	5,595	3.20	6,083
Ionia	3.04	4,689	3.12	5,798
Presque Isle	3.50	1,306	3.05	1,585
Washtenaw	2.84	58,314	3.04	74,532
Schoolcraft	3.41	943	2.96	945
Lenawee	2.60	10,147	2.76	12,289
Arenac	2.67	912	2.71	977
Luce	2.64	737	2.17	777
Gogebic	(D)	(D)	(D)	(D)
Keweenaw	(D)	(D)	(D)	(D)
Ontonagon	1.73	802	(D)	(D)
Michigan	4.60	2,522,184	4.85	3,047,442
United States	5.98	68,866,000	6.06	79,872,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XIV-2. AVERAGE UNION SCALES FOR SELECTED CRAFTS OR JOBS IN THE BUILDING TRADES IN DETROIT, FLINT, AND GRAND RAPIDS: 1 JULY 1977 AND 1978

(Dollars per hour)

Craft or job	Detroit		Flint		Grand Rapids	
	1977	1978	1977	1978	1977	1978
Journeymen						
Asbestos workers	10.90	11.70	9.46	10.10	9.46	10.10
Boilermakers	11.17	11.96	11.17	11.95	n.a.	n.a.
Bricklayers	11.56	12.14	10.55	11.00	8.55	9.05
Carpenters	11.11	11.79	9.34	9.63	8.95	9.50
Cement finishers	10.55	11.13	9.90	10.25	7.74	8.35
Electricians (inside wiremen)	10.92	12.15	10.75	11.60	9.75	10.48
Elevator constructors	12.48	13.21	11.00	11.26	9.90	10.20
Glaziers	10.31	11.97	9.29	9.91	8.35	8.55
Lathers	10.65	11.26	8.47	10.82	8.20	9.92
Marble setters	11.32	12.08	10.55	11.00	7.85	8.80
Mosaic/terrazzo workers	10.49	11.19	9.49	11.00	7.85	8.80
Painters	10.70	11.35	8.70	9.05	7.95	8.45
Paperhangers	10.70	11.35	9.00	9.35	8.20	8.70
Pipefitters	10.55	11.55	10.47	11.17	10.32	11.09
Plasterers	12.25	12.20	9.07	9.67	9.08	9.68
Plumbers	10.75	11.31	10.47	11.17	10.32	10.09
Rodmen	10.10	10.97	10.10	10.97	9.70	10.21
Roofers, composition	10.81	11.51	11.45	12.25	7.25	7.65
Roofers, slate and tile	11.81	12.51	11.80	12.60	7.50	7.90
Sheet-metal workers	10.34[a]	10.97[a]	9.69	10.65	9.55	10.40
Stonemasons	11.56	12.14	10.55	11.00	8.55	10.21
Structural-iron workers	10.65	11.90	10.65	11.90	9.70	9.05
Tile layers	10.88	11.61	9.49	11.00	7.85	8.80
Helpers and laborers						
Bricklayers' tenders	8.93	9.63	7.89	8.44	6.56	7.01
Building laborers	8.93	9.53	7.89	8.44	6.41	7.01
Elevator constructors' helpers	8.73	9.24	7.70	7.88	6.93	7.14
Plasterers' laborers	10.19	10.88	7.89	8.44	6.56	7.16
Marble setters' helpers	9.27	9.71	n.a.	n.a.	n.a.	n.a.
Terrazzo workers' helpers	10.55	10.83	n.a.	n.a.	7.06	7.31
Tile layers' helpers	9.27	9.71	n.a.	n.a.	7.06	7.31

SOURCE: Bureau of Labor Statistics, Union Wages and Hours: Building Trades, Bulletin No. 2038 (Washington, D.C.: annually).

a. A simple average of agreements A and B.

TABLE XIV-3. NUMBER AND VALUATION OF NEW HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN: 1971-1978 AND PRELIMINARY 1979

Year		Privately owned: In structures with: 1 unit	2 units	3 and 4 units	5 units or more	Total	Publicly owned (contract awards)
1971	No. of housing units	44,280	1,108	2,097	24,436	71,921	927
	Valuation ($000)	939,308	14,906	28,432	309,114	1,291,760	12,840
1972	No. of housing units	42,252	1,434	2,414	29,947	76,047	550
	Valuation ($000)	968,198	23,545	38,528	377,425	1,407,696	10,908
1973	No. of housing units	37,522	1,232	2,288	30,116	71,258	--
	Valuation ($000)	935,621	19,930	39,065	378,694	1,373,310	--
1974	No. of housing units	26,793	864	728	15,806	44,191	100
	Valuation ($000)	714,199	13,759	11,192	227,254	966,405	2,360
1975	No. of housing units	26,885	598	524	8,762	36,769	211
	Valuation ($000)	792,694	10,550	7,633	130,582	941,459	3,903
1976	No. of housing units	33,093	906	729	11,167	45,893	--
	Valuation ($000)	1,059,841	17,059	13,592	173,427	1,263,919	--
1977	No. of housing units	42,265	856	1,000	14,936	59,057	--
	Valuation ($000)	1,516,811	17,530	21,786	256,438	1,812,567	--
1978	No. of housing units	43,323	1,052	1,223	15,412	61,010	--
	Valuation ($000)	1,758,970	23,820	27,362	294,264	2,104,418	--
1979	No. of housing units	31,866	996	379	12,345	46,675	--
	Valuation ($000)	1,479,129	28,578	35,231	268,504	1,810,441	--

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1971 through 1977 (Washington, D.C.: annually), Table 2 (1977); and Bureau of the Census, special release.

TABLE XIV-4. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1978 AND PRELIMINARY 1979

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1972	1,474	90	48	3,603	5,215
	1973	1,081	30	119	1,445	2,675
	1974	740	74	4	1,021	1,839
	1975	556	8	0	69	633
	1976	821	4	0	280	1,105
	1977	1,266	18	0	386	1,670
	1978	1,460	16	0	914	2,390
	1979	1,086	30	23	188	1,327
Battle Creek	1972	430	6	0	158	594
	1973	627	2	20	779	1,428
	1974	424	6	0	61	491
	1975	418	6	0	230	654
	1976	651	10	0	300	961
	1977	554	4	20	267	845
	1978	534	2	44	201	781
	1979	478	18	70	246	812
Bay City	1972	587	4	28	214	833
	1973	615	8	24	633	1,280
	1974	445	2	4	363	814
	1975	403	6	0	72	481
	1976	458	2	12	350	822
	1977	525	2	0	0	527
	1978	494	6	0	0	500
	1979	239	4	0	0	243
Detroit	1972	14,467	226	1,397	13,726	29,816
	1973	14,946	380	1,287	16,010	32,433
	1974	9,735	160	259	7,924	18,078
	1975	9,964	74	165	3,801	13,004
	1976	13,070	80	300	4,764	18,214
	1977	18,239	106	471	5,895	24,711
	1978	18,625	100	628	7,056	26,409
	1979	13,633	208	639	5,538	20,018
Flint	1972	2,820	36	215	1,206	4,277
	1973	2,349	32	140	2,137	4,658
	1974	1,450	30	127	341	1,948
	1975	1,206	4	11	264	1,485
	1976	1,447	8	8	398	1,861
	1977	2,067	8	60	1,147	3,282
	1978	2,192	12	19	1,054	3,277
	1979	1,576	32	71	601	2,280
Grand Rapids	1972	3,080	202	212	2,277	5,771
	1973	2,625	146	63	2,439	5,273
	1974	2,209	82	40	1,229	3,560
	1975	2,141	184	96	1,006	3,427
	1976	2,325	274	65	1,147	3,811
	1977	2,775	280	58	1,450	4,563
	1978	3,106	438	115	2,173	5,832
	1979	2,556	298	174	1,103	4,131

TABLE XIV-4. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1978 AND PRELIMINARY 1979 (cont.)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Jackson	1972	581	20	27	348	976
	1973	656	20	26	164	866
	1974	627	8	11	24	670
	1975	427	4	10	449	890
	1976	612	36	18	250	916
	1977	544	0	3	630	1,177
	1978	529	6	0	128	663
	1979	534	8	4	36	582
Kalamazoo-Portage	1972	749	38	42	1,957	2,786
	1973	1,089	58	88	418	1,653
	1974	692	82	48	476	1,298
	1975	823	34	43	755	1,655
	1976	937	34	75	926	1,972
	1977	1,271	18	154	1,197	2,640
	1978	1,117	22	111	424	1,674
	1979	783	10	112	753	1,658
Lansing-East Lansing	1972	2,717	312	28	2,270	5,327
	1973	2,659	254	126	2,646	5,685
	1974	1,486	132	20	805	2,443
	1975	1,266	84	31	484	1,865
	1976	1,620	136	55	698	2,509
	1977	2,144	100	78	1,478	3,800
	1978	2,013	138	130	1,174	3,455
	1979	2,222	122	190	1,437	3,971
Muskegon-Muskegon Heights-Norton Shores	1972	677	6	8	409	1,100
	1973	577	10	25	297	909
	1974	470	22	12	188	692
	1975	639	0	0	0	639
	1976	662	36	24	441	1,163
	1977	747	6	0	120	873
	1978	852	12	0	309	1,173
	1979	546	10	12	32	600
Saginaw	1972	1,377	82	15	1,115	2,589
	1973	1,052	44	25	1,036	2,157
	1974	793	32	31	318	1,174
	1975	660	66	32	127	885
	1976	776	122	8	135	1,041
	1977	875	112	36	320	1,343
	1978	955	104	16	176	1,251
	1979	507	136	0	396	1,039

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1972 through 1977 (Washington, D.C.: annually), Table 3 (1977); and Bureau of the Census, special release.

TABLE XIV-5. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1978 AND PRELIMINARY 1979

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1972	37,535	1,927	622	33,698	73,782
	1973	29,612	440	2,371	18,609	51,031
	1974	24,242	1,758	50	13,474	39,523
	1975	20,165	154	0	1,086	21,405
	1976	28,613	58	0	3,507	32,179
	1977	48,267	357	0	7,125	55,749
	1978	65,889	391	0	14,960	81,241
	1979	60,056	1,228	1,039	3,567	65,889
Battle Creek	1972	9,104	162	0	1,988	11,254
	1973	12,998	21	255	5,635	18,910
	1974	9,307	96	67	762	10,232
	1975	10,436	118	0	1,706	12,259
	1976	18,812	218	0	3,140	22,170
	1977	17,257	85	364	3,112	20,818
	1978	17,561	72	1,981	2,230	21,843
	1979	20,034	2,105	1,520	3,076	25,215
Bay City	1972	11,316	60	317	2,870	14,563
	1973	12,238	112	530	7,088	19,968
	1974	9,951	28	50	4,486	14,516
	1975	9,342	123	0	922	10,387
	1976	12,122	30	185	3,299	15,636
	1977	16,049	25	0	0	16,074
	1978	17,251	75	0	0	17,326
	1979	9,520	57	0	0	9,577
Detroit	1972	372,086	5,415	24,420	199,656	601,577
	1973	419,881	6,301	25,442	229,613	681,237
	1974	302,828	2,423	4,709	144,601	454,560
	1975	334,864	1,236	2,471	72,278	420,849
	1976	487,264	1,390	6,662	90,723	586,039
	1977	754,541	2,261	11,286	127,298	895,387
	1978	877,358	2,337	14,434	156,342	1,050,469
	1979	729,971	6,135	14,955	137,464	888,524
Flint	1972	58,538	392	2,992	13,361	75,283
	1973	56,210	561	1,922	21,986	80,678
	1974	36,359	431	1,672	3,245	41,708
	1975	33,005	64	194	2,667	35,929
	1976	40,549	248	96	6,409	47,302
	1977	65,605	283	1,169	12,955	80,011
	1978	80,283	259	444	16,238	97,224
	1979	66,056	1,156	1,939	11,349	80,500
Grand Rapids	1972	69,931	2,535	3,093	27,009	102,568
	1973	68,698	2,075	1,072	25,985	97,830
	1974	61,648	1,255	552	13,779	77,234
	1975	63,566	3,144	1,293	10,231	78,233
	1976	74,150	4,848	1,129	14,664	94,791
	1977	99,326	5,432	905	17,443	123,106
	1978	123,887	9,754	2,325	33,386	169,352
	1979	120,354	8,369	3,865	22,373	154,961

TABLE XIV-5. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1978 AND PRELIMINARY 1979 (cont.)

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Jackson	1972	10,833	217	271	3,168	14,489
	1973	13,393	174	358	1,789	15,715
	1974	13,624	102	145	270	14,140
	1975	9,592	80	167	5,569	15,408
	1976	14,511	476	272	3,738	18,997
	1977	15,648	0	60	7,515	23,223
	1978	17,560	114	0	1,554	19,228
	1979	18,260	136	45	521	18,963
Kalamazoo-Portage	1972	19,356	624	711	18,608	39,298
	1973	25,868	1,196	1,430	4,618	33,111
	1974	19,742	1,150	822	5,747	27,460
	1975	27,097	632	729	8,482	36,940
	1976	32,420	708	1,342	13,346	47,816
	1977	45,280	472	2,762	20,318	68,831
	1978	47,307	403	1,978	6,851	56,540
	1979	38,885	293	2,329	12,058	53,565
Lansing-East Lansing	1972	62,042	5,757	278	25,854	93,930
	1973	62,760	4,753	2,080	28,006	97,599
	1974	39,002	2,500	343	11,882	53,726
	1975	38,452	1,705	789	5,762	46,709
	1976	52,967	3,563	1,222	7,996	65,749
	1977	74,916	2,862	2,668	22,066	102,512
	1978	80,384	4,177	3,348	18,593	106,503
	1979	96,953	4,437	5,168	27,911	134,468
Muskegon-Muskegon Heights-Norton Shores	1972	12,620	80	101	4,142	16,942
	1973	10,851	128	392	1,970	13,343
	1974	10,290	243	227	1,036	11,796
	1975	15,146	0	0	0	15,146
	1976	16,471	431	360	4,745	22,008
	1977	21,762	95	0	1,000	22,857
	1978	26,935	238	0	5,768	32,940
	1979	21,359	240	175	680	22,454
Saginaw	1972	29,708	1,040	123	11,859	42,730
	1973	25,433	514	373	11,473	37,792
	1974	20,619	414	365	3,507	24,905
	1975	19,327	1,204	386	1,595	22,511
	1976	24,027	2,081	108	1,330	27,546
	1977	29,251	1,927	293	6,039	37,510
	1978	35,896	1,946	299	2,139	40,280
	1979	21,978	3,567	0	7,669	33,214

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1972 through 1977 (Washington, D.C.: annually), Table 3 (1977); and Bureau of the Census, special release.

TABLE XIV-6. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS, INSIDE AND OUTSIDE OF CENTRAL CITIES: PRELIMINARY 1979

SMSA	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor					
Ann Arbor	210	24	0	6	240
Outside central city	876	6	23	182	1,087
Battle Creek					
Battle Creek	13	0	0	120	133
Outside central city	465	18	70	126	679
Bay City					
Bay City	21	0	0	0	21
Outside central city	218	4	0	0	222
Detroit					
Detroit	271	0	0	638	909
Outside central city	13,362	208	639	4,900	19,109
Flint					
Flint	24	2	0	0	26
Outside central city	1,552	30	71	601	2,254
Grand Rapids					
Grand Rapids	192	34	0	168	394
Outside central city	2,364	264	174	935	3,737
Jackson					
Jackson	0	0	0	0	0
Outside central city	534	8	4	36	582
Kalamazoo-Portage					
Kalamazoo	80	0	0	156	236
Portage	124	0	4	141	269
Outside central cities	579	10	108	456	1,153
Lansing-East Lansing					
Lansing	389	24	4	447	864
East Lansing	145	60	0	160	365
Outside central cities	1,688	38	186	830	2,742
Muskegon-Muskegon Heights-Norton Shores					
Muskegon	7	0	0	0	7
Muskegon Heights	2	0	0	0	2
Norton Shores	104	4	4	24	136
Outside central cities	433	6	8	8	455
Saginaw					
Saginaw	10	2	0	0	12
Outside central city	497	134	0	396	1,027

SOURCE: Bureau of the Census, special release.

TABLE XIV-7. ANNUAL CONSTRUCTION CONTRACT AWARDS IN MICHIGAN, 1964-1979, AND THE UNITED STATES, 1978 AND 1979

(In thousands of dollars)

Year	Non-residential	Residential	Total building	Public works and utilities	Total construction
			Michigan		
1964	788,533	741,977	1,530,510	317,401	1,848,411
1965	766,258	1,038,356	1,814,614	465,073	2,279,686
1966	930,000	835,030	1,765,100	333,200	2,098,330
1967	946,513	1,020,000	1,966,513	357,000	2,323,513
1968	912,849	1,029,581	1,942,430	407,537	2,349,967
1969	962,697	891,531	1,854,228	874,715	2,728,943
1970	955,592	942,760	1,898,352	1,052,245	2,950,597
1971	874,058	1,319,978	2,194,036	840,719	3,034,755
1972	1,010,891	1,596,633	2,607,524	842,780	3,450,304
1973	1,206,481	1,856,354	3,062,835	1,299,276	4,362,111
1974	1,355,623	1,314,147	2,669,770	791,628	3,461,398
1975	951,139	1,089,145	2,040,284	1,146,796	3,187,080
1976	1,115,512	1,470,420	2,585,932	590,478	3,176,410
1977	1,525,733	2,144,489	3,670,222	604,463	4,274,685
1978	1,752,267	2,469,130	4,221,397	1,821,304	6,042,701
1979	1,945,482	2,399,418	4,344,900	892,825	5,237,725
			United States		
1978	45,045,834	74,949,473	119,995,307	39,934,701	159,930,008
1979	49,659,492	74,685,642	124,345,134	42,032,763	166,377,897

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, special release.

TABLE XIV-8. NONRESIDENTIAL AND RESIDENTIAL BUILDING AWARDS IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1978 AND 1979

(In thousands of dollars)

Area	Nonresidential		Residential		Total	
	1978	1979	1978	1979	1978	1979
Ann Arbor	59,942	75,052	90,402	82,717	150,344	157,769
Battle Creek	40,622	21,988	29,838	37,586	70,460	59,574
Bay City	12,445	10,530	18,447	14,060	30,892	24,590
Detroit	902,153	1,013,597	1,132,079	1,095,321	2,034,232	2,108,918
Flint	76,447	82,857	104,031	98,385	180,478	181,242
Grand Rapids	173,722	263,125	206,104	170,191	372,826	433,316
Jackson	14,138	19,386	24,498	35,177	38,636	54,563
Kalamazoo-Portage	35,058	59,530	80,430	70,378	115,488	129,908
Lansing-East Lansing	92,095	98,691	121,114	161,029	213,210	259,720
Muskegon-Muskegon Heights-Norton Shores	23,686	21,411	38,371	26,255	62,057	47,666
Saginaw	68,811	38,873	49,649	61,674	118,460	100,547
Michigan	1,752,267	1,945,482	2,469,130	2,399,418	4,221,397	4,344,900
United States	45,045,834	49,659,492	74,949,473	74,685,642	119,995,307	124,345,134

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, news release.

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Alcona	1975	71	1,040	1	13	0	0	0	0
	1976	126	2,905	1	1	0	0	5	130
	1977	142	3,376	0	0	0	0	1	20
	1978	163	4,211	3	124	6	572	3	130
	1979	131	3,601	2	17	1	20	2	300
Alger	1975	35	485	3	38	1	5	1	30
	1976	74	2,173	0	0	0	0	7	1,017
	1977	81	2,495	0	0	0	0	9	1,090
	1978	75	2,632	0	0	0	0	10	1,283
	1979	55	2,124	0	0	0	0	12	1,576
Allegan	1975	341	7,567	6	289	2	59	3	59
	1976	412	9,505	5	274	4	170	11	449
	1977	435	11,659	10	830	4	329	9	704
	1978	372	12,185	22	1,412	3	292	11	793
	1979	219	6,882	2	41	2	125	1	2
Alpena	1975	132	2,748	1	25	6	839	4	81
	1976	166	4,481	2	58	3	350	9	1,612
	1977	281	6,975	2	77	0	0	9	623
	1978	301	7,675	4	362	3	306	8	923
	1979	275	10,774	3	174	2	382	9	3,615
Antrim	1975	106	2,589	1	12	1	62	5	259
	1976	158	4,287	9	558	4	108	19	313
	1977	204	6,457	3	49	0	0	7	191
	1978	250	8,518	5	273	4	171	9	442
	1979	235	8,410	4	391	3	341	1	28
Arenac	1975	94	2,012	6	125	3	120	2	150
	1976	147	2,983	1	140	4	88	3	154
	1977	63	1,370	4	386	3	188	8	73
	1978	97	2,184	0	0	2	86	3	212
	1979	89	2,517	4	364	4	782	5	434
Baraga	1975	51	889	0	0	0	0	0	0
	1976	88	1,707	1	11	1	17	2	55
	1977	49	972	2	10	0	0	1	18
	1978	31	780	1	24	0	0	4	194
	1979	25	743	2	18	0	0	0	0
Barry	1975	177	3,653	0	0	0	0	0	0
	1976	307	7,047	0	0	2	205	0	0
	1977	196	4,624	4	174	3	190	2	205
	1978	277	5,823	3	133	1	36	1	12
	1979	318	10,810	2	58	1	169	3	29

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

		Residential		Industrial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Bay	1975	481	10,387	6	283	2	361	31	2,197
	1976	822	15,907	10	4,479	7	577	25	1,261
	1977	527	16,074	9	1,574	11	897	18	1,967
	1978	500	17,326	7	848	10	767	22	2,736
	1979	243	9,577	15	1,121	5	586	17	1,498
Benzie	1975	93	2,136	0	0	1	20	4	112
	1976	155	3,102	2	30	2	58	0	0
	1977	147	3,877	0	0	1	80	3	420
	1978	140	3,808	1	129	0	0	3	60
	1979	109	2,967	1	150	2	360	2	221
Berrien	1975	772	17,369	34	3,408	7	1,083	20	1,959
	1976	808	19,691	26	3,168	14	761	24	1,234
	1977	825	21,572	30	2,435	7	1,242	36	3,620
	1978	585	19,454	44	4,373	12	1,756	24	11,272
	1979	422	12,568	38	3,002	13	2,073	19	5,235
Branch	1975	49	1,079	0	0	0	0	0	0
	1976	166	4,234	6	1,440	0	0	3	33
	1977	199	4,627	7	474	1	125	15	339
	1978	175	4,330	17	2,049	2	195	6	296
	1979	152	3,543	1	5	0	0	5	28
Calhoun	1975	477	8,607	7	1,703	25	1,114	15	702
	1976	654	15,123	20	3,128	6	609	19	1,049
	1977	649	16,194	24	2,406	10	1,814	13	699
	1978	504	16,020	28	8,463	7	1,279	35	1,396
	1979	494	14,405	29	3,382	9	1,344	18	2,720
Cass	1975	328	6,419	4	125	1	10	1	11
	1976	259	6,194	11	852	1	279	5	263
	1977	246	7,121	6	369	6	549	5	197
	1978	218	7,256	12	2,121	3	106	4	45
	1979	201	5,122	6	889	1	37	1	49
Charlevoix	1975	235	5,035	2	131	0	0	1	66
	1976	175	4,324	3	183	4	220	2	49
	1977	184	5,124	5	469	1	75	1	700
	1978	175	5,942	1	54	0	0	12	7,219
	1979	125	4,578	0	0	0	0	8	6,317
Cheboygan	1975	119	3,083	3	270	1	275	4	581
	1976	129	3,382	2	480	1	279	6	873
	1977	187	5,635	0	0	0	0	3	392
	1978	198	7,175	1	800	0	0	3	1,713
	1979	88	2,163	1	287	1	162	2	432

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Chippewa	1975	178	2,758	1	1	3	813	2	7
	1976	53	1,119	3	155	1	65	1	2
	1977	33	754	2	114	1	100	1	592
	1978	36	921	1	146	0	0	1	180
	1979	88	2,163	1	287	1	162	2	432
Clare	1975	558	14,198	0	0	0	0	0	0
	1976	329	9,304	1	240	1	279	7	1,017
	1977	149	4,852	0	0	1	600	4	502
	1978	239	6,418	0	0	0	0	4	493
	1979	228	5,662	0	0	1	361	1	156
Clinton	1975	258	6,435	3	31	4	325	3	360
	1976	268	7,513	1	8	1	21	3	237
	1977	337	10,085	3	355	2	343	4	812
	1978	281	10,479	5	198	2	375	4	620
	1979	444	13,189	2	76	0	0	5	691
Crawford	1975	265	4,978	2	50	4	45	2	80
	1976	232	3,260	6	349	1	100	4	45
	1977	165	3,807	1	25	2	225	10	83
	1978	133	3,036	0	0	1	168	8	235
	1979	134	3,139	2	148	2	265	7	324
Delta	1975	116	2,781	8	459	0	0	7	1,514
	1976	300	8,629	9	868	2	145	3	97
	1977	473	11,576	7	405	2	237	5	206
	1978	247	7,479	5	1,294	6	1,767	9	1,130
	1979	186	5,608	8	1,731	7	439	6	541
Dickinson	1975	132	3,380	5	232	1	100	3	40
	1976	84	2,540	7	828	3	350	5	2,255
	1977	102	3,401	1	30	0	0	1	243
	1978	48	1,914	2	1,512	1	99	6	374
	1979	0	0	0	0	0	0	0	0
Eaton	1975	484	12,631	12	1,320	5	1,575	7	769
	1976	829	20,515	7	794	7	7,000	10	914
	1977	1,161	33,086	5	14,160	6	1,090	10	415
	1978	1,277	37,401	12	8,571	6	430	16	6,314
	1979	926	31,212	16	14,255	7	3,248	32	3,075
Emmet	1975	63	1,250	0	0	0	0	2	135
	1976	112	2,109	1	16	1	76	1	75
	1977	60	1,625	1	170	3	4,152	5	1,626
	1978	175	4,893	1	9,000	0	0	2	140
	1979	147	3,707	0	0	0	0	1	100

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Genesee	1975	1,251	30,290	14	388	35	5,409	48	3,411
	1976	1,584	40,366	25	2,019	30	3,286	69	7,904
	1977	2,993	70,109	33	14,055	49	10,417	82	11,883
	1978	2,971	86,110	35	9,023	40	7,721	66	8,159
	1979	2,043	71,581	31	22,603	51	11,800	103	21,161
Gladwin	1975	62	1,454	4	53	2	21	0	0
	1976	226	6,617	1	103	1	137	1	60
	1977	238	7,681	0	0	0	0	0	0
	1978	217	7,911	2	97	3	475	5	313
	1979	156	6,344	0	0	0	0	0	0
Gogebic	1975	65	1,386	2	32	0	0	1	290
	1976	61	1,327	3	117	0	0	2	153
	1977	78	2,036	0	0	1	158	0	0
	1978	90	2,577	1	17	0	0	0	0
	1979	47	1,473	0	0	0	0	0	0
Grand Traverse	1975	344	9,005	7	345	4	299	4	1,428
	1976	621	16,140	11	525	6	395	28	3,749
	1977	964	25,698	21	1,489	16	1,947	45	5,120
	1978	1,035	32,531	21	1,654	7	1,303	47	5,063
	1979	666	24,005	21	2,122	10	1,112	40	5,775
Gratiot	1975	170	4,507	0	0	2	385	4	173
	1976	150	3,297	1	47	1	23	1	45
	1977	181	3,841	1	51	1	6	5	1,872
	1978	164	3,813	5	465	5	418	6	891
	1979	95	2,858	8	1,988	5	1,386	4	1,175
Hillsdale	1975	78	1,841	5	196	0	0	2	82
	1976	18	527	2	179	1	40	3	237
	1977	122	3,194	17	1,239	7	229	7	765
	1978	141	3,679	6	460	1	176	2	607
	1979	405	9,931	4	449	3	550	1	92
Houghton	1975	138	3,123	10	395	1	249	1	66
	1976	205	4,094	2	220	3	84	5	604
	1977	142	3,554	5	992	4	200	3	110
	1978	131	3,424	3	52	1	192	5	48
	1979	98	2,595	4	1,209	2	79	4	5,016
Huron	1975	166	4,412	3	67	2	213	4	1,410
	1976	129	3,250	6	12,564	2	52	4	282
	1977	124	3,308	3	390	3	385	8	268
	1978	134	3,974	11	1,684	1	28	4	724
	1979	184	4,378	1	200	1	7	2	453

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Ingham	1975	952	24,077	2	248	10	5,618	24	2,457
	1976	1,259	34,279	12	10,309	23	3,901	35	3,469
	1977	2,038	53,434	12	1,299	22	7,892	57	7,378
	1978	1,658	51,869	23	10,238	39	11,770	41	5,995
	1979	2,417	84,391	25	5,191	32	8,345	36	3,982
Ionia	1975	171	3,565	0	0	1	25	1	12
	1976	149	3,441	5	205	2	33	6	248
	1977	264	5,908	5	407	5	370	8	163
	1978	239	6,754	8	960	4	320	7	380
	1979	184	5,675	8	266	6	244	5	324
Iosco	1975	292	5,259	8	581	2	160	13	636
	1976	206	4,526	5	47	4	134	12	1,429
	1977	306	8,248	3	201	1	180	10	1,438
	1978	356	9,700	7	309	1	66	6	295
	1979	177	5,466	7	334	4	427	8	211
Iron	1975	60	1,365	3	180	1	279	1	88
	1976	93	1,892	0	0	1	500	1	40
	1977	79	2,028	1	143	1	144	8	478
	1978	63	2,015	0	0	0	0	3	675
	1979	143	4,313	1	12	0	0	0	0
Isabella	1975	65	2,051	3	72	3	336	2	335
	1976	167	3,745	0	0	0	0	8	739
	1977	94	2,723	4	518	2	658	5	434
	1978	453	12,844	0	0	3	312	8	824
	1979	143	5,833	2	87	3	370	7	807
Jackson	1975	890	15,408	11	912	4	1,592	18	1,113
	1976	916	18,997	10	998	8	450	25	3,059
	1977	1,177	23,223	17	1,589	7	739	25	1,366
	1978	663	19,228	18	1,835	4	891	15	2,694
	1979	582	18,963	11	1,765	6	919	13	721
Kalamazoo	1975	1,392	32,130	20	4,419	17	5,863	33	1,913
	1976	1,699	42,061	31	7,617	15	1,095	32	8,367
	1977	2,307	59,876	43	6,414	14	1,800	58	5,830
	1978	1,306	45,011	31	11,007	31	5,060	30	12,464
	1979	1,538	49,140	20	8,982	28	6,580	36	15,555
Kalkaska	1975	122	1,966	1	15	2	298	0	0
	1976	106	1,985	14	721	3	67	4	259
	1977	109	2,422	12	800	4	117	6	156
	1978	118	2,862	15	1,289	4	260	9	421
	1979	133	3,551	4	254	6	378	9	418

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

		Residential		Industrial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Kent	1975	2,396	52,681	56	6,931	21	3,540	49	7,881
	1976	2,566	62,674	94	11,825	35	4,823	81	15,103
	1977	3,207	83,888	94	28,327	39	8,291	56	9,512
	1978	4,197	121,147	137	49,375	52	13,991	105	18,160
	1979	2,909	110,133	149	61,520	58	16,703	102	17,651
Keweenaw	1975	0	0	0	0	0	0	0	0
	1976	0	0	0	0	0	0	0	0
	1977	1	29	0	0	0	0	0	0
	1978	0	0	0	0	0	0	0	0
	1979	0	0	0	0	0	0	0	0
Lake	1975	71	918	0	0	0	0	0	0
	1976	104	1,537	1	25	0	0	3	15
	1977	112	2,219	1	10	0	0	3	51
	1978	137	2,565	0	0	0	0	0	0
	1979	89	2,868	0	0	0	0	0	0
Lapeer	1975	433	11,344	3	92	1	75	8	471
	1976	567	14,911	12	685	1	342	11	379
	1977	710	21,836	9	1,363	4	330	11	690
	1978	991	31,860	7	505	8	1,064	6	604
	1979	632	24,488	4	312	8	1,310	7	100
Leelanau	1975	175	4,979	0	0	0	0	7	118
	1976	207	6,550	0	0	0	0	4	124
	1977	272	8,969	0	0	0	0	3	49
	1978	305	11,534	1	15	1	175	3	281
	1979	214	8,554	3	333	3	514	4	232
Lenawee	1975	349	9,147	8	387	2	109	9	245
	1976	299	9,152	13	1,517	3	208	12	1,165
	1977	408	11,897	17	927	2	163	15	989
	1978	436	14,594	14	2,985	4	311	16	3,090
	1979	155	6,547	9	1,449	6	1,297	9	869
Livingston	1975	812	24,663	2	399	5	235	8	683
	1976	890	30,843	16	3,050	2	290	15	758
	1977	1,127	44,585	15	1,835	11	1,781	24	937
	1978	1,834	77,089	24	3,164	12	980	26	2,540
	1979	1,219	60,111	32	7,668	12	3,300	20	2,259
Luce	1975	35	810	1	240	0	0	0	0
	1976	31	441	2	75	2	115	1	26
	1977	40	735	0	0	0	0	0	0
	1978	39	900	1	34	1	177	0	0
	1979	28	667	3	43	0	0	2	26

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Mackinac	1975	13	248	0	0	0	0	3	75
	1976	31	535	0	0	0	0	2	230
	1977	13	308	1	3	0	0	2	64
	1978	22	748	2	14	0	0	0	0
	1979	0	0	0	0	0	0	0	0
Macomb	1975	3,039	83,904	66	7,768	32	5,242	61	14,431
	1976	4,558	128,545	68	14,448	24	3,237	87	15,703
	1977	5,525	196,973	129	29,465	43	5,822	84	16,537
	1978	6,792	245,810	151	62,432	45	5,535	120	27,399
	1979	4,726	173,956	137	38,746	39	7,947	109	22,913
Manistee	1975	125	2,184	10	253	3	250	4	122
	1976	135	2,980	2	69	2	87	4	100
	1977	180	4,221	17	145	1	85	10	173
	1978	234	5,749	6	398	2	500	4	335
	1979	130	3,760	8	911	1	39	2	1,508
Marquette	1975	627	13,143	5	1,123	9	1,704	13	1,241
	1976	690	14,443	12	294	2	423	15	2,775
	1977	1,297	30,596	14	2,206	7	1,501	20	1,333
	1978	595	16,048	7	206	8	1,034	21	1,792
	1979	286	8,392	7	269	3	237	4	190
Mason	1975	138	2,738	9	762	1	240	6	173
	1976	269	6,210	8	473	3	391	21	414
	1977	150	3,486	10	258	0	0	5	148
	1978	203	4,689	16	3,298	1	50	4	408
	1979	114	2,821	4	686	2	177	7	266
Mecosta	1975	159	3,222	1	56	3	380	4	486
	1976	158	3,650	2	608	6	121	4	138
	1977	183	4,705	2	175	6	217	0	0
	1978	314	8,225	2	131	5	775	4	446
	1979	145	5,117	0	0	0	0	0	0
Menominee	1975	84	1,408	4	107	1	40	0	0
	1976	71	1,660	4	453	3	250	1	18
	1977	174	4,289	11	416	1	142	1	244
	1978	193	4,892	3	130	1	239	1	130
	1979	127	3,664	2	165	0	0	0	0
Midland	1975	368	9,782	7	366	8	477	8	2,101
	1976	724	21,010	8	291	6	587	12	1,133
	1977	481	17,612	12	851	7	405	11	1,081
	1978	598	21,813	10	1,769	5	1,187	6	924
	1979	514	17,447	2	140	4	417	13	2,665

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Missaukee	1975	12	105	14	43	0	0	0	0
	1976	9	208	0	0	0	0	0	0
	1977	132	3,049	0	0	0	0	3	40
	1978	128	3,193	2	31	0	0	6	274
	1979	91	2,382	7	144	4	518	7	800
Monroe	1975	625	17,585	8	421	6	432	35	1,271
	1976	519	18,194	17	2,026	6	521	41	3,205
	1977	885	30,143	14	3,507	9	1,089	53	1,162
	1978	651	28,005	18	8,658	6	2,007	50	2,780
	1979	597	26,911	17	33,664	7	1,130	22	3,628
Montcalm	1975	238	3,794	3	105	6	197	9	448
	1976	216	3,975	0	0	2	107	6	148
	1977	300	5,839	3	1,340	10	269	3	140
	1978	273	5,861	10	1,342	4	270	7	327
	1979	200	5,809	3	5,764	1	167	9	879
Montmorency	1975	0	0	0	0	0	0	0	0
	1976	0	0	0	0	0	0	0	0
	1977	0	0	0	0	0	0	0	0
	1978	145	5,217	2	476	0	0	8	1,172
	1979	188	6,633	1	238	1	280	3	586
Muskegon	1975	486	11,810	12	480	9	582	26	6,456
	1976	1,004	18,625	21	2,066	9	5,327	27	2,476
	1977	714	18,960	31	4,316	11	1,569	17	1,084
	1978	1,035	29,089	18	7,303	10	902	27	2,963
	1979	479	18,299	33	6,642	8	1,710	37	3,480
Newaygo	1975	156	2,536	3	131	1	86	7	90
	1976	228	4,819	1	619	2	148	6	96
	1977	188	4,009	1	4	5	93	17	597
	1978	180	4,460	1	350	2	104	8	414
	1979	82	1,926	0	0	0	0	3	169
Oakland	1975	5,034	169,683	78	33,855	71	15,171	91	16,698
	1976	7,104	255,910	112	17,313	44	18,817	150	51,154
	1977	11,199	414,079	197	51,678	107	58,748	263	48,823
	1978	10,141	448,288	235	64,114	95	39,451	169	47,527
	1979	9,154	418,893	214	82,316	93	77,518	212	63,276
Oceana	1975	153	3,336	2	20	1	6	1	7
	1976	159	3,382	2	150	0	0	8	85
	1977	159	3,897	5	443	2	325	9	258
	1978	138	3,851	3	494	2	205	3	36
	1979	121	4,155	3	455	3	55	6	153

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Ogemaw	1975	172	4,587	4	961	1	298	1	145
	1976	149	4,171	3	535	0	0	2	305
	1977	159	4,818	8	1,065	2	208	3	548
	1978	177	6,277	1	600	2	560	4	615
	1979	156	6,230	5	483	1	125	5	433
Ontonagon	1975	5	117	0	0	0	0	0	0
	1976	5	119	0	0	0	0	0	0
	1977	3	74	0	0	0	0	0	0
	1978	45	770	1	25	0	0	2	38
	1979	2	71	0	0	0	0	0	0
Osceola	1975	8	163	1	4	1	75	1	5
	1976	103	2,320	0	0	3	37	2	350
	1977	163	2,874	1	60	1	20	5	226
	1978	129	3,107	1	225	2	328	4	401
	1979	69	1,743	3	229	1	15	6	187
Oscoda	1975	46	1,256	0	0	0	0	0	0
	1976	101	2,978	7	1,682	6	1,674	0	0
	1977	118	3,479	0	0	0	0	1	123
	1978	92	3,263	0	0	1	241	2	270
	1979	111	3,162	0	0	0	0	1	147
Otsego	1975	247	5,616	6	1,308	2	301	4	523
	1976	211	6,007	17	3,583	0	0	2	132
	1977	281	8,431	7	1,470	4	655	19	1,555
	1978	252	8,802	19	4,079	8	1,518	17	3,061
	1979	245	8,913	7	1,434	7	1,616	10	1,316
Ottawa	1975	1,031	25,552	12	1,946	5	1,183	17	1,197
	1976	1,245	32,119	42	5,415	16	1,859	22	1,597
	1977	1,356	39,218	49	12,416	17	1,747	29	2,830
	1978	1,635	48,205	50	9,606	20	5,129	38	2,992
	1979	1,222	44,828	54	18,533	16	3,455	34	5,795
Presque Isle	1975	63	725	0	0	1	11	0	0
	1976	71	1,421	0	0	0	0	10	576
	1977	114	2,736	0	0	1	150	6	339
	1978	89	3,535	0	0	22	99	0	0
	1979	193	6,567	0	0	0	0	0	0
Roscommon	1975	194	2,983	0	0	5	70	6	249
	1976	260	4,144	1	16	2	268	15	268
	1977	344	6,032	3	33	5	328	21	924
	1978	357	8,655	2	75	2	108	14	657
	1979	277	5,934	3	94	4	192	6	391

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Saginaw	1975	885	22,511	7	386	18	3,129	28	7,797
	1976	1,041	27,546	11	3,454	21	3,485	26	1,644
	1977	1,343	37,510	19	24,075	20	3,280	46	4,626
	1978	1,251	40,280	18	4,573	27	2,471	48	5,467
	1979	1,039	3,324	20	3,951	27	3,411	41	10,223
St. Clair	1975	498	13,268	8	2,663	5	574	24	3,124
	1976	698	25,485	16	3,323	4	2,265	11	1,452
	1977	745	23,192	10	1,374	9	2,102	24	1,807
	1978	783	25,847	9	4,461	8	1,758	23	1,536
	1979	637	23,439	25	7,454	13	2,093	21	1,631
St. Joseph	1975	242	5,668	4	107	4	300	9	1,083
	1976	343	7,971	13	385	4	134	15	400
	1977	319	8,351	22	787	1	190	9	212
	1978	438	13,534	27	8,114	8	716	15	728
	1979	229	8,569	8	648	6	276	7	1,660
Sanilac	1975	159	3,509	1	9	5	306	2	64
	1976	185	4,630	7	405	1	126	0	0
	1977	224	6,330	6	800	1	100	3	200
	1978	200	6,299	6	443	0	0	1	100
	1979	175	5,371	1	100	1	150	11	636
Schoolcraft	1975	47	390	0	0	0	0	4	207
	1976	52	1,002	2	580	2	180	4	97
	1977	77	1,379	1	112	0	0	2	181
	1978	50	1,144	0	0	0	0	0	0
	1979	36	767	1	8	1	328	0	0
Shiawassee	1975	234	5,639	2	29	2	143	4	176
	1976	277	6,937	1	100	1	44	5	182
	1977	289	9,902	5	507	5	224	6	477
	1978	306	11,113	3	170	1	16	7	746
	1979	237	8,919	10	740	2	1,500	8	853
Tuscola	1975	403	8,176	22	2,439	3	161	1	25
	1976	391	9,261	13	930	3	381	3	344
	1977	348	11,136	3	118	3	747	7	454
	1978	329	12,070	4	647	1	97	9	914
	1979	172	7,005	0	0	6	473	3	282
Van Buren	1975	263	4,809	2	250	3	251	1	1
	1976	273	5,755	13	888	3	359	3	28
	1977	333	8,955	6	197	5	4,072	20	165
	1978	368	11,529	8	592	2	521	15	1,508
	1979	120	4,424	3	308	2	765	9	236

TABLE XIV-9. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1975-1979 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)	Number of buildings	Value ($000)
Wastenaw	1975	663	21,405	17	4,699	10	2,764	15	1,723
	1976	1,105	32,179	27	13,062	23	3,192	18	3,389
	1977	1,670	55,749	43	24,494	24	5,846	38	7,479
	1978	2,390	81,242	45	16,296	18	6,392	40	7,115
	1979	1,327	65,889	35	10,776	45	11,265	25	11,184
Wayne	1975	4,213	118,563	143	33,533	53	65,084	193	30,734
	1976	4,428	131,236	164	38,748	56	11,024	207	42,614
	1977	5,405	195,869	205	59,732	92	18,665	275	48,663
	1978	5,868	221,575	235	102,222	136	30,557	206	33,891
	1979	4,650	187,636	195	146,525	77	33,428	235	48,333
Wexford	1975	129	2,612	10	205	5	294	3	270
	1976	144	3,295	3	104	4	153	14	139
	1977	198	5,588	3	296	1	152	5	195
	1978	334	9,379	8	1,624	7	359	1	40
	1979	118	3,729	3	197	1	6	3	186
Michigan	1975	37,753	942,920	729	118,496	456	128,476	935	122,846
	1976	46,056	1,260,441	997	182,938	473	83,233	1,280	192,480
	1977	59,057	1,812,567	1,277	298,906	657	156,792	1,636	207,910
	1978	61,010	2,104,418	1,468	432,960	720	156,893	1,502	249,449
	1979	46,675	1,810,441	1,298	504,485	681	215,310	1,435	291,414

SOURCE: Bureau of the Census, special release.

a. Includes plants processing, producing, and assembling goods and materials together with affiliated buildings such as warehouses, garages, and administrative buildings. Newspaper and printing plants, central bakeries, laundry and dry cleaning plants, and ice plants fall within this definition.

b. Includes banks and professional buildings. Also the administration buildings of labor unions, chambers of commerce, and trade associations, and public administration buildings such as post offices, court houses, city halls, and federal offices.

c. Includes buildings used in buying, selling, distributing, and storing merchandise and materials or performing consumer services, that is, stores, auto and other showrooms, commercial warehouses, grain elevators, garages for storing commercial vehicles, restaurants, taverns, night clubs, bakery shops, laundry and dry cleaning shops, laundromats, frozen food lockers, beauty and barber shops, and animal hospitals.

TABLE XIV-10. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 3 OCTOBER 1979

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders		Builders' branch offices	Alteration contractors		
					Partnership or corporation	Individual		Builders' salesmen	Partnership or corporation	Individual
Alcona	2	3	0	0	6	41	0	0	1	23
Alger	0	3	0	0	1	24	0	0	0	3
Allegan	6	8	0	2	15	146	2	1	7	51
Alpena	3	7	0	2	17	87	3	1	6	35
Antrim	1	7	0	0	16	109	0	2	2	15
Arenac	2	0	0	1	3	33	0	0	0	24
Baraga	0	1	0	0	3	12	1	0	2	5
Barry	3	3	2	3	15	100	2	1	3	24
Bay	2	9	3	8	25	210	6	12	21	94
Benzie	2	4	0	3	7	60	0	0	1	20
Berrien	11	14	1	12	52	379	3	16	38	180
Branch	1	1	0	0	15	75	1	7	8	48
Calhoun	9	8	4	21	44	159	1	57	22	74
Cass	2	3	0	1	15	88	1	1	10	32
Charlevoix	3	9	1	5	13	108	0	1	5	22
Cheboygan	2	6	0	3	15	83	1	0	8	28
Chippewa	3	6	0	0	11	66	1	3	3	22
Clare	1	3	0	0	6	90	2	0	5	31
Clinton	5	3	2	4	24	143	0	4	9	35
Crawford	0	1	0	0	2	45	1	0	3	9
Delta	6	5	0	1	7	52	0	3	5	15
Dickinson	3	7	0	4	14	39	1	4	5	10
Eaton	7	9	3	2	27	188	1	11	9	45
Emmet	1	7	1	4	29	120	3	2	19	40
Genesee	12	35	7	44	209	653	12	110	89	265

TABLE XIV-10. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 3 OCTOBER 1979 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders		Builders' branch offices	Builders' salesmen	Alteration contractors	
					Partnership or corporation	Individual			Partnership or corporation	Individual
Gladwin	2	0	0	0	9	55	1	0	3	19
Gogebic	0	5	0	2	11	76	1	1	1	8
Grand Traverse	6	24	4	36	66	333	4	5	23	76
Gratiot	2	2	0	0	19	66	2	2	7	26
Hillsdale	1	1	0	0	12	61	2	0	11	42
Houghton	1	18	0	2	21	47	1	3	8	10
Huron	2	3	0	0	14	81	2	2	9	34
Ingham	30	45	33	90	151	710	11	53	48	122
Ionia	5	1	1	2	8	90	1	2	6	37
Iosco	2	5	0	2	19	109	2	0	5	28
Iron	1	2	0	1	9	15	2	0	2	6
Isabella	2	4	0	5	15	112	5	0	9	17
Jackson	6	20	4	18	54	264	5	41	48	120
Kalamazoo	15	15	7	61	77	469	7	13	57	116
Kalkaska	2	3	0	0	4	51	1	2	3	7
Kent	15	43	14	109	169	717	7	79	92	204
Keweenaw	1	1	0	0	2	6	0	0	0	1
Lake	0	5	0	0	2	27	1	0	0	6
Lapeer	4	4	1	3	31	206	0	2	15	67
Leelanau	0	1	1	6	15	69	0	3	1	14
Lenawee	9	4	0	4	28	183	4	13	19	95
Livingston	4	12	2	7	76	414	5	1	15	74
Luce	1	5	0	0	3	12	0	0	0	3
Mackinac	1	0	0	0	11	37	0	1	0	5
Macomb	24	28	2	74	396	1,230	15	116	151	401

TABLE XIV-10. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 3 OCTOBER 1979 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders				Alteration contractors	
					Partnership or corporation	Individual	Builders' branch offices	Builders' salesmen	Partnership or corporation	Individual
Manistee	4	1	0	1	12	51	3	1	2	19
Marquette	5	14	0	6	38	136	5	6	17	44
Mason	3	6	0	2	13	53	2	2	4	30
Mecosta	12	10	0	9	14	85	2	1	3	25
Menominee	1	1	0	3	12	38	0	1	3	18
Midland	2	11	1	18	28	155	1	2	13	52
Missaukee	2	0	0	0	2	32	0	0	2	5
Monroe	5	5	0	5	52	292	4	13	37	100
Montcalm	3	3	0	0	16	109	1	0	9	40
Montmorency	1	2	0	1	6	54	0	0	3	16
Muskegon	6	9	4	13	46	316	1	10	24	69
Newaygo	4	3	0	0	8	73	2	7	7	38
Oakland	46	118	38	558	1,055	3,074	32	558	238	574
Oceana	1	1	1	3	8	53	0	0	7	17
Ogemaw	2	2	0	0	5	60	1	2	1	15
Ontonagon	0	3	0	0	0	1	0	0	1	3
Osceola	2	5	0	0	7	55	1	1	3	15
Oscoda	0	2	0	0	2	36	0	0	5	10
Otsego	2	8	0	3	12	100	1	0	8	28
Ottawa	11	18	4	34	68	403	3	6	46	78
Presque Isle	1	3	0	1	8	37	1	1	3	16
Roscommon	2	7	0	0	15	126	2	3	2	25
Saginaw	7	12	4	27	76	420	8	86	49	140
Sanilac	3	6	0	1	15	110	3	1	4	55
Schoolcraft	1	2	0	0	5	14	0	0	2	3

TABLE XIV-10. NUMBER OF LICENSEES IN THE BUILDING INDUSTRY AND ASSOCIATED PROFESSIONS, BY COUNTY: 3 OCTOBER 1979 (cont.)

County	Sanitarians	Land Surveyors	Landscape architects	Architects	Residential builders: Partnership or corporation	Residential builders: Individual	Builders' branch offices	Builders' salesmen	Alteration contractors: Partnership or corporation	Alteration contractors: Individual
Shiawassee	4	8	2	0	20	143	2	7	14	56
St. Clair	8	20	0	16	49	311	4	7	27	132
St. Joseph	5	2	0	2	21	140	2	1	16	64
Tuscola	3	2	0	0	17	146	3	2	10	65
Van Buren	6	6	0	0	15	188	1	0	9	59
Washtenaw	10	14	27	137	103	468	10	19	47	100
Wayne	51	92	27	359	557	2,078	27	367	343	902
Wexford	3	7	0	3	14	74	2	1	1	19
Outstate	19	175	97	1,464	2	12	0	1	0	3
Foreign	0	0	0	13	0	0	0	0	0	0
Bad county codes	0	0	0	1	0	0	0	0	1	0
TOTAL	460	992	298	3,222	4,134	17,943	245	1,681	1,775	5,523

SOURCE: Michigan Department of Licensing and Regulation, special release.

XV. MANUFACTURING

The first postwar manufacturing census covered the year 1947. Subsequent surveys have been made twice each decade, with current law authorizing the U.S. Bureau of the Census to canvass the nation's industrial and business establishments at five-year intervals for years ending in 2 and 7. These economic censuses cover construction industries, manufacturing, mining, retail trade, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in mechanical or chemical transformation of inorganic or organic substances into new products fall in the manufacturing division, where they are further classified according to industry. The product groupings from which industry classifications are derived are based on such considerations as whether they are typically produced by the same establishment, similarity of manufacturing processes, types of materials used, types of customers, and so forth. An industry generally is defined as a group of establishments producing a single product or a more or less closely related group of products. Some activities of a service nature (for example, enameling and engraving) are included in manufacturing if they are performed for the trade, but in services or retail trade if they are performed primarily for households.

A company operating establishments at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if possible and if the activities are of significant magnitude. Establishments with less than $5,000 in value of products are excluded.

Beginning in 1949, the Census Bureau has published annual reports for intercensal years. The Annual Survey of Manufactures: 1976 is the most recent; the 1977 preliminary reports are now available. For the 1976 Survey, any manufacturing establishment with 250 or more employees was included, companies with no establishment having 250 or more employees were sampled. The statistics on which the 1976 Survey was based were developed from about 70,000 manufacturing establishments (the national total is approximately 300,000). The statistics from these establishments were adjusted so as to represent the universe of manufacturing establishments for any industry or area.

Most of the employment statistics from the census compilations were omitted from this edition of the Abstract because they disagree with figures published by the Michigan Employment Security Commission. Census employment estimates of the number of production workers in manufacturing are averages for the four payroll periods ending nearest the 15th of March, May, August, and November. For other employees, the figure used is the mid-March total. The Michigan Employment Security Commission, in contrast, makes monthly estimates of total employment, wage and salary, and averages the twelve figures for annual estimates. Employment data for manufacturing are given in Tables V-14, V-15, and V-16. Employment and earnings figures for workers in establishments covered under the state unemployment insurance program are indicated in Table V-21. Most manufacturing establishments are, in fact, covered under the program.

The ranking of Michigan counties according to the relative importance of manufacturing (Table XV-16) was developed on the basis of personal income accounts and employment statistics prepared by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income is discussed in the narrative material introducing chapter VI. By and large, the BEA income and employment statistics for manufacturing are consistent with the employment figures released by the Michigan Employment Security Commission since they are based on the same monthly reports from employers.

The production of motor vehicles is of special interest because of the great importance of this industry to Michigan. The Automobile Manufacturers Association publishes a wealth of information on the industry, and Automotive News and Ward's Communications, Inc., in Detroit are leading sources of regional statistics about the industry. R.L. Polk & Company, also in Detroit, compiles information about new car and truck sales and registrations. Some of these data are reproduced in chapter XVI.

Current Industrial Reports, published by the Bureau of the Census, contains current information about production and shipments of a great variety of manufactured items. A few of the series give details by states.

The American Iron and Steel Institute monitors monthly steel production in the United States and various centers. Its Annual Statistical Report and Iron and Steel Works Directory for the United States and Canada provide detailed information on the steel industry.

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TABLE XV-1. ANNUAL PAYROLL AND VALUE ADDED IN MICHIGAN AND U. S. MANUFACTURING ESTABLISHMENTS, SELECTED YEARS: 1949-1977

(Millions of dollars)

Year	Yearly payroll[a]		Value added by manufacture[b]	
	Michigan	United States[c]	Michigan	United States[c]
1949	3,479.7	41,482.0	5,770.0	75,366.5
1950	4,144.4	46,642.8	7,392.3	89,749.8
1951	4,604.5	54,741.5	7,858.4	102,085.8
1952	4,933.0	59,598.2	8,320.7	109,162.1
1953	5,919.4	66,492.9	9,781.6	121,659.1
1954	5,248.9	62,962.7	8,707.2	117,032.3
1955	6,083.5	69,096.6	10,690.5	135,022.5
1956	5,827.5	74,015.1	10,201.5	144,909.3
1957	5,835.5	76,314.6	10,375.4	147,838.4
1958	5,161.2	73,875.2	8,363.6	141,540.6
1959	5,855.1	81,203.6	10,534.8	161,535.8
1960	6,106.8	83,672.5	10,858.2	163,998.5
1961	5,678.2	83,677.4	10,191.7	164,281.1
1962	6,281.0	89,819.2	11,969.3	179,071.1
1963	6,950.7	99,898.8	13,090.3	192,082.9
1964	7,604.9	106,048.1	14,358.6	206,193.6
1965	8,586.1	113,972.2	16,885.6	226,939.9
1966	9,221.3	125,350.0	17,629.2	250,880.1
1967	9,357.2	132,208.4	17,241.6	261,983.8
1968	10,350.4	141,822.7	19,266.4	285,058.9
1969	11,041.6	152,765.0	20,253.0	304,440.7
1970	10,232.5	153,078.5	17,959.4	300,227.6
1971	11,128.6	156,202.8	20,270.6	314,138.4
1972	12,741.4	174,205.5	23,375.7	353,994.0
1973	14,768.3	193,324.5	27,170.4	405,583.6
1974	14,807.5	208,367.3	26,333.2	452,477.6
1975	14,100.4	209,519.0	25,084.0	442,485.2
1976	17,322.2	233,388.7	32,389.8	511,471.1
1977	20,072.4	263,020.6	37,480.4	581,640.9

SOURCE: Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), MC77-A-23(P), Table 1; 1977 Census of Manufactures, Summary Series, Selected Statistics for Industry Groups and Industries: 1977 and 1972 (Washington, D.C.: 1979), MC77-S-1(P), Table 1; U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), General Summary Section, Table 1 (1947-1972 U.S. data), and U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 2 (1958-1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1947 to 1957 Michigan data).

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements; see Table XV-4 for employer contributions to fringe benefits for 1974-1976. Includes central administrative offices, auxiliaries, and factories.

b. Adjusted value added for 1956-1967; unadjusted value added for previous years. Unadjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales). Adjusted value added takes into account the net change in finished goods and work-in-process inventories during the year. The concept of value added is not applied to central administrative offices and auxiliaries.

c. Excludes Alaska and Hawaii prior to 1958.

TABLE XV-2. MANUFACTURERS' EXPENDITURES FOR NEW PLANT AND NEW EQUIPMENT IN MICHIGAN AND THE UNITED STATES: 1955-1977

(Millions of dollars)

Year	Michigan			United States[a]		
	New structures and additions to plant	New machinery and equipment	Total	New structures and additions to plant	New machinery and equipment	Total
1955	197	609	806	2,426	5,808	8,233
1956	232	783	1,015	3,472	7,762	11,233
1957	129	566	695	3,865	8,279	12,144
1958	111	354	465	3,235	6,308	9,544
1959	102	430	531	2,582	6,558	9,140
1960	134	522	656	2,818	7,279	10,098
1961	110	453	563	2,749	7,031	9,780
1962	115	441	556	2,731	7,705	10,436
1963	171	591	762	2,966	8,404	11,370
1964	224	807	1,031	3,269	10,025	13,294
1965	n.a.	n.a.	1,453	4,186	12,429	16,615
1966	n.a.	n.a.	1,489	5,230	15,006	20,236
1967	336	1,024	1,360	5,714	15,789	21,503
1968	n.a.	n.a.	1,170	5,294	15,319	20,613
1969	n.a.	n.a.	1,372	5,806	16,485	22,291
1970	n.a.	n.a.	1,301	5,756	16,409	22,164
1971	n.a.	n.a.	1,202	5,342	15,599	20,941
1972	n.a.	n.a.	2,071	5,370	18,707	24,073
1973	n.a.	n.a.	1,998	6,016	20,958	26,973
1974	326	2,524	2,851	8,209	27,337	35,546
1975	307	1,956	2,263	n.a.	n.a.	37,262
1976	301	2,335	2,636	n.a.	n.a.	40,545

SOURCE: Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), MC77-A-23(P), Table 1; 1977 Census of Manufacturers, Summary Series, Selected Statistics for Industry Groups and Industries: 1977 and 1972 (Washington, D.C.: 1979), MC77-S-1(P), Table 1; U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), Expenditures for Plant and Equipment section, Table 1 (1953 to 1972 U.S. data), U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 3 (1967 to 1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1953 to 1966 Michigan data).

a. Excludes Alaska and Hawaii prior to 1958. n.a.: not available.

TABLE XV-3. ANNUAL MAN-HOURS AND WAGES OF PRODUCTION WORKERS IN MICHIGAN AND U.S. MANUFACTURING ESTABLISHMENTS, SELECTED YEARS: 1950-1977

Year	Man-hours[a] (millions)		Wages[b] (millions of dollars)	
	Michigan	United States[c]	Michigan	United States[c]
1950	1,769.2	23,716.5	3,112.9	34,600.0
1951	1,761.2	25,263.8	3,397.4	40,654.8
1952	1,729.5	25,617.6	3,587.3	43,763.6
1953	1,987.3	27,065.6	4,327.1	48,979.1
1954	1,650.3	24,334.1	3,661.0	44,590.5
1955	1,912.4	25,898.3	4,365.1	49,217.9
1956	1,686.3	26,088.5	4,016.6	52,040.8
1957	1,592.6	25,208.0	3,946.7	52,569.0
1958	1,204.1	22,679.2	3,184.8	49,605.2
1959	1,388.1	24,443.6	3,769.7	54,714.1
1960	1,412.5	24,174.4	3,977.4	55,555.5
1961	1,256.4	23,289.4	3,597.8	54,764.6
1962	1,400.9	24,269.5	4,124.6	59,134.1
1963	1,473.9	24,509.4	4,521.0	62,090.8
1964	1,564.6	24,510.3	4,948.8	65,838.9
1965	1,721.7	26,567.8	5,698.9	71,361.5
1966	1,775.7	28,102.5	6,066.7	78,256.4
1967	1,669.2	27,837.6	6,008.0	81,393.6
1968	1,744.3	28,156.8	6,777.4	87,480.4
1969	1,743.1	28,599.8	7,154.9	93,459.6
1970	1,468.1	26,669.3	6,332.4	91,609.0
1971	1,463.5	25,265.9	6,965.4	93,231.3
1972	1,582.6	26,699.2	8,094.2	105,501.8
1973	1,736.4	28,096.9	9,545.3	118,332.6
1974	1,532.6	27,239.3	9,101.2	124,983.2
1975	1,308.4	24,069.6	8,512.1	121,429.0
1976	1,503.2	25,354.2	10,792.9	137,565.4
1977	1,632.3	26,546.7	12,732.2	156,440.5

SOURCE: Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), MC77-A-23(P), Table 1; 1977 Census of Manufactures, Summary Series, Selected Statistics for Industry Groups and Industries: 1977 and 1972 (Washington, D.C.: 1979), MC77-S-1(P), Table 1; U.S. Census of Manufactures: 1972, vol. 1, Subject and Special Statistics (Washington, D.C.: 1976), General Summary Section, Table 1 (1947-1972 U.S. data), and U.S. Census of Manufactures: 1972, vol. 3, Area Statistics, Part 1, Alabama-Montana (Washington, D.C.: 1976), Michigan section, Table 2 (1958-1972 Michigan data), and similar census documents for 1954, 1963, and 1967 (1947 to 1957 Michigan data).

a. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when the employee was not at the plant. Data not available for Michigan prior to 1950.

b. Includes all forms of compensation before deductions for Social Security, income tax, and so forth.

c. Excludes Alaska and Hawaii prior to 1958.

TABLE XV-4. ANNUAL PAYROLL AND FRINGE BENEFITS FOR OPERATING MANUFACTURING ESTABLISHMENTS, AND PAYROLLS FOR ADMINISTRATIVE AND AUXILIARY MANUFACTURING UNITS, MICHIGAN AND THE UNITED STATES: 1967-1969 AND 1974-1976

(In millions of dollars)

Year	Operating manufacturing establishments			Administrative and auxiliary units[c]	Total
	Payroll[a]	Social Security and other legally required expenditures	Employer payments for other programs[b]		
			Michigan		
1967	8,290.9	441.1	833.5	1,066.3	10,631.8
1968	9,218.8	489.2	924.4	1,131.6	11,764.0
1969	9,765.5	566.7	1,062.2	1,276.1	12,670.5
1974	12,666.6	967.1	2,025.9	2,140.6	17,800.2
1975	12,031.4	957.7	2,188.6	2,069.0	17,246.7
1976	14,823.3	1,191.5	2,584.2	2,283.9	20,882.9
			United States		
1967	123,480.5	6,604.0	8,456.2	8,727.9	147,268.6
1968	132,568.4	7,207.1	9,366.9	9,254.3	158,396.7
1969	142,705.1	7,971.7	10,664.1	10,120.5	171,461.4
1974	190,574.3	13,470.9	19,392.2	18,228.8	241,666.2
1975	190,504.1	13,604.6	21,807.0	19,014.9	244,930.6
1976	212,997.8	15,872.7	25,604.3	20,390.9	274,865.7

SOURCE: Bureau of the Census, Annual Survey of Manufactures, 1968-1969 (Washington, D.C.: 1973), chapter 1, Table 2, chapter 8, Tables 1B, 2A, and 2B, and chapter 9, East North Central section, Table 3 for 1969 and 1968 data; Census of Manufactures, 1972 MC72(3)-23 Michigan (Washington, D.C.: 1975), Table 1; Annual Survey of Manufactures, 1975 M75 (AS)-1, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), Table 4, and M75(AS)-6, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1977), East North Central section, Tables 3 and 4; and Annual Survey of Manufactures, 1976 M76(AS)-1, General Statistics for Industry Groups and Industries (Washington, D.C.: 1977), Table 4, and M76(AS)-6, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities (Washington, D.C.: 1977), East North Central Section, Tables 3 and 4.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth.

b. Private pension plans, health and sickness insurance, supplemental unemployment funds, and so forth.

c. Units not operated as an integral part of manufacturing establishments and serving two or more manufacturing establishments.

TABLE XV-5. GROSS BOOK VALUE OF DEPRECIABLE ASSETS OF OPERATING MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1957, 1967-1970, AND 1973-1976

(In millions of dollars)

Year	Structures and buildings	Machinery and equipment	Total
		Michigan	
1957	n.a.	n.a.	8,280.8
1967	4,103.3	10,304.4	14,407.7
1968	4,270.6	10,896.3	15,166.9
1969	4,455	11,680	16,135
1970	4,635	12,199	16,835
1973	n.a.	n.a.	n.a.
1974	5,476.3	15,080.5	20,556.3
1975	5,859.5	16,470.7	22,329.8
1976	5,831.5	17,121.3	22,952.4
		United States	
1957	n.a.	n.a.	110,489.2
1967	61,381.4	156,697.0	218,078.4
1968	65,165.2	166,613.9	231,779.1
1969	70,018	179,225	249,244
1970	74,263	192,003	266,266
1973	86,801	229,360	316,158
1974	92,454	245,689	338,251
1975	n.a.	n.a.	n.a.
1976	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, Annual Survey of Manufactures, 1970 M70 (AE)-7 (Washington, D.C.. September 1972), Table 3, Annual Survey of Manufactures, 1976 M76 (AS)-6 (Washington, D.C.: 1978), Table 4, and similar documents for intervening years.

n.a.: not available.

TABLE XV-6. EARNINGS IN MANUFACTURING ESTABLISHMENTS LOCATED IN MICHIGAN, BY MAJOR INDUSTRY GROUP: 1973 AND 1978

(In thousands of dollars)

Industry group	1973	1978
Food & kindred products	519,434	789,644
Textile mill products	20,919	43,256
Apparel & other fabricated textile products	248,645	408,270
Paper & allied products	284,763	395,887
Printing, publishing, & allied industries	358,337	468,787
Chemicals & allied products	586,921	899,698
Petroleum refining & related industries	38,334	54,540
Tobacco manufacturing	70	(L)
Rubber & miscellaneous plastic products	293,221	494,882
Leather and leather products	31,328	39,040
Total nondurable goods	2,381,972	3,594,014
Lumber & wood products excl. furniture	98,423	147,891
Furniture & fixtures	228,851	321,803
Primary metal industries	1,382,308	1,955,491
Fabricated metal products	1,588,364	2,488,913
Machinery, except electrical	2,006,771	3,033,810
Electrical machinery	499,016	905,717
Transportation equipment excl. motor vehicle	104,550	262,850
Motor vehicles & equipment	6,240,267	9,463,338
Ordnance	43,200	0
Stone, glass, and clay	269,445	389,243
Instruments	93,268	171,711
Miscellaneous manufacturing	96,708	122,325
Total durable goods	12,651,171	19,263,092
TOTAL manufacturing	15,033,143	22,857,106

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

L: less than $50,000.

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	wages[a] ($000,000)	
Food and kindred prod.	652.7	64.2	415.2	2,070.8
Meat products	94.2	11.1	69.3	216.0
Meatpacking plants	42.1	5.3	32.1	102.1
Dairy products	78.8	6.3	39.4	257.3
Condensed & evap. milk	15.5	1.9	12.2	99.7
Ice cream & frz. dessert	9.1	.7	3.6	17.3
Fluid milk	51.6	3.3	21.5	130.9
Preserved fruits and vegetables	77.7	12.9	54.7	257.2
Canned fruits and vegetables	21.6	3.7	14.6	55.8
Pickles, sauces, salad dressings	17.8	3.2	14.5	57.1
Frozen fruits & veget.	15.5	2.9	10.9	48.5
Grain mill products	129.8	11.5	103.7	549.7
Flour, other	9.7	1.0	6.0	42.4
Bakery products	99.8	8.7	58.2	231.8
Bread, cake, and related products	84.9	6.8	47.1	194.7
Cookies & crackers	15.0	1.9	11.1	37.1
Sugar, confectionary pro.	21.5	3.1	16.3	73.2
Fats and oils	12.0	.9	7.0	34.3
Beverages	112.7	6.6	51.1	366.0
Bottled and canned soft drinks	60.9	3.0	19.2	173.8
Misc. foods, kindred products	26.2	3.1	15.4	85.4
Food prep., NEC	22.1	2.6	13.2	74.4
Textile mill procucts	38.8	4.2	26.5	97.7
Misc. textile goods	33.2	3.2	22.6	88.1
Apparel, other textile products	390.5	43.1	313.4	820.4
Men's & boys' furnishing	7.7	1.7	5.6	19.4
Men's & boys' clothing NEC	3.8	.8	2.5	11.0
Womens' & Misses' outerwear	5.0	.9	3.3	8.9
Misc. apparel & accessories	7.0	1.5	5.5	12.8
Misc. fabricated textile products	362.5	37.4	294.1	761.4
Canvas & related pro.	5.6	.9	3.4	12.3
Auto. & apparel trim.	323.9	31.7	266.5	685.6

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Lumber & wood pro.	148.7	23.0	108.4	297.2
Logging camps, log con.	10.4	1.5	8.6	23.5
Sawmills & planing mills	28.9	5.6	22.8	58.0
General	21.1	4.0	16.6	43.5
Millwork, plywood, struc. members	46.2	6.3	32.3	93.4
Wood kitchen cabinets	13.8	1.9	9.9	26.8
Structural wood members, NEC	10.4	1.3	7.0	21.4
Wood containers	15.6	3.0	11.7	34.6
Wood pallets & skids	11.9	2.3	9.0	25.5
Wood bldgs. & mobil homes	17.2	2.0	11.4	33.4
Prefab. wood bldgs.	12.4	1.4	8.0	26.4
Misc. wood products	30.4	4.9	21.8	54.3
Furniture & fixtures	299.2	33.9	204.1	629.9
Household furniture	54.3	8.7	37.9	89.1
Upholstered & household	15.7	2.2	10.6	15.2
Mattresses & bedsprings	5.9	.8	3.7	15.2
Office furniture	121.1	11.2	85.6	274.0
Public bldg., related furniture	43.1	4.4	26.9	67.2
Partitions and fixtures	53.6	6.9	36.0	111.2
Wood partitions & fixtures	30.6	4.0	19.9	66.5
Metal partitions & fixtures	23.1	2.9	16.1	44.7
Misc. furniture & fixtures	26.9	2.8	17.8	88.5
Paper and allied products	364.9	37.7	258.5	783.4
Papermills, exc. bldg. paper	122.4	11.9	92.5	259.4
Misc. converted paper prods.	75.8	8.7	51.1	196.3
Paper coating & glazing	26.7	2.6	17.2	59.5
Bags, exc. textile bags	7.8	1.2	5.4	20.9
Diet-cut paper & board	12.7	1.5	8.8	26.2
Sanitary paper products	11.8	1.3	8.3	45.8
Converted paper pro. NEC	7.4	1.0	5.1	21.5
Paperboard containers and boxes	107.7	11.3	69.2	222.8
Folding paper board boxes	32.4	3.3	22.4	60.4
Corrugated and solid fiber boxes	62.7	6.5	38.0	132.2
Printing and publishing	449.8	35.5	240.7	962.6
Books	29.0	3.2	17.1	73.2
Book publishing	8.8	.4	2.1	34.3
Book printing	20.2	2.9	15.0	38.9
Misc. publishing	31.3	2.3	14.9	106.3
Commercial printing	144.1	14.6	96.9	266.2
Commer. printing, letter-press	34.0	4.2	23.0	64.5
Commer. printing, litho-graphic	105.2	9.8	69.9	193.3

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Manifold business forms	18.7	1.6	10.8	37.6
Blankbooks & bookbinding	16.6	2.5	12.8	35.0
Blankbooks & looseleaf binders	10.2	1.7	7.6	24.7
Bookbinding & related work	6.4	.9	5.2	10.2
Printing trade services	30.7	2.6	21.5	51.2
Typesetting	17.0	1.6	12.2	29.1
Lithographic platmaking	11.2	.8	7.5	17.6
Chemicals & allied products	578.8	43.5	320.7	1,989.0
Industrial inorganic chemicals	64.4	4.6	37.0	173.4
Industrial inorganic chem. NEC	25.4	2.0	15.0	93.3
Plastics, synthetics	93.3	7.3	51.9	306.3
Drugs	130.2	9.9	82.2	481.8
Pharmaceutical preparations	116.8	8.8	74.2	439.6
Soaps, cleaners, toilet goods	40.0	2.7	15.4	228.9
Soap & other detergents	32.4	2.1	11.6	232.8
Paints & allied products	66.7	4.7	34.5	221.9
Industrial organic chemicals	125.3	9.2	68.1	333.1
Cyclic crudes & intermediates	7.9	.8	5.8	21.0
Industrial organic chemicals, NEC	117.4	8.4	62.3	312.1
Misc. chemical products	54.7	4.7	29.3	168.5
Adhesives & sealants	13.8	1.3	7.2	42.5
Chemical preparations, NEC	36.8	3.0	19.8	117.8
Petroleum and coal prods.	39.3	3.1	24.1	171.3
Petroleum refining	21.3	1.8	14.7	117.4
Misc. petroleum, coal products	10.9	.6	4.2	30.1
Rubber, misc. plastics products	428.1	55.3	286.9	915.5
Fabricated rubber pro., NEC	50.9	6.7	34.2	106.6
Leather & leather products	26.7	4.9	21.8	73.5
Stone, clay, glass products	305.2	30.9	213.6	759.8
Products of purchased glass	50.5	5.0	34.6	105.6
Cement hydraulic	33.6	3.1	26.0	111.6
Pottery & related products	22.9	2.4	18.0	32.2
Concrete, gypsum, plaster products	81.4	7.9	51.3	193.6
Concrete block & brick	13.1	1.1	6.1	31.2
Concrete products, NEC	23.2	2.5	15.3	52.4

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and Industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Misc. nonmetalic mineral products	64.0	7.1	41.7	155.5
Abrasive products	23.4	2.2	14.1	53.3
Gaskets, packing, & sealing devices	20.3	2.6	12.4	45.6
Minerals, ground or treated	12.2	1.3	9.7	45.4
Primary metal industries	1,585.2	140.7	1,194.8	2,880.2
Blast furnace, basic steel products	591.3	43.8	451.4	1,095.9
Blast furnaces and steel mills	480.1	33.5	371.4	914.3
Cold finishing of steel shapes	33.6	2.9	25.0	34.7
Steel pipe and tubes	46.9	4.5	34.3	93.8
Gray iron foundries	494.6	45.4	403.1	842.9
Malleable iron foundries	114.5	9.3	81.1	217.3
Secondary non-ferrous metals	9.3	1.0	6.0	17.2
Nonferrous rolling and drawing	116.6	13.4	89.2	233.8
Copper rolling & drawing	26.5	3.1	20.9	49.9
Aluminum extruded pro.	53.5	5.7	41.4	82.4
Nonferrous wiredrawing, insulating	29.6	3.9	23.0	83.9
Nonferrous foundries	112.1	14.5	84.9	229.9
Aluminum foundries	57.5	7.3	45.3	117.0
Brass, bronze, copper foundries	13.7	1.6	10.6	26.3
Nonferrous foundries, NEC	40.9	5.7	29.1	85.6
Misc. primary metal prod.	58.7	6.9	39.3	122.7
Metal heat treating	48.3	5.7	32.3	94.4
Primary metal pro., NEC	10.5	1.2	7.0	28.3
Fabricated metal products	2,245.9	1,665.4	4,482.0	4,736.0
Metal cans, shipping containers	12.3	1.5	9.6	39.8
Cutlery, hand tools, and hardware	301.1	28.4	223.1	643.5
Hand & edge tools, NEC	15.3	1.6	8.7	34.9
Hardware, NEC	282.8	26.4	212.5	604.0
Plumbing, heating, except electric	21.2	2.2	12.5	55.9
Heating equip. exc. electric	11.8	1.0	5.9	30.9

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Fabricated struc. metal products	199.6	20.0	125.9	398.7
Fabricated structural metal	38.2	3.7	24.0	75.8
Metal doors, sash, & trim	38.6	4.9	22.8	80.0
Fabricated platework, boiler shop	51.8	4.8	36.2	91.9
Sheet metal work	51.3	4.8	32.0	112.0
Architectural metal work	14.1	1.2	7.7	27.4
Screw machine products, bolts, etc.	183.5	20.4	129.2	398.5
Screw machine prods.	104.4	12.8	73.7	209.3
Bolts, nuts, rivets, washers	79.1	7.7	55.5	189.2
Metal forgings/stampings	1,182.9	116.0	926.6	2,239.3
Iron & steel forgings	99.4	9.0	76.6	186.7
Automotive stampings	1,026.5	99.7	810.2	1,935.8
Metal services, NEC	106.9	16.0	76.0	220.2
Plating & polishing	76.3	11.2	55.7	158.0
Metal coating, allied services	30.6	4.7	20.3	62.2
Misc. fabricated metal products	236.0	27.1	160.5	483.2
Steel springs exc. wire	11.1	1.1	8.0	20.4
Valves & pipe fittings	73.2	7.8	46.9	157.6
Wire springs	52.1	6.2	39.3	101.2
Misc. fabricated wire pro.	26.0	3.3	18.1	47.0
Fabricated pipe & fittings	23.7	3.0	16.3	60.2
Fabricated metal prods., NEC	49.9	5.8	31.9	97.2
Machinery, except elec.	2,482.7	219.6	1,613.7	5,135.8
Engines & turbines	235.5	16.2	149.9	659.5
Int. combustion engines NEC	235.0	16.2	149.6	658.5
Farm & garden machinery	102.3	8.8	70.9	246.1
Const., related mach.	234.8	17.4	132.3	525.4
Construction machinery	84.3	7.3	57.5	211.0
Conveyors and conveying equipment	82.2	5.0	35.3	169.0
Hoists, cranes & monorails	14.2	1.2	7.8	22.4
Industrial trucks & tractors	47.6	3.3	28.2	107.1
Metalworking machinery	982.5	91.7	678.1	1,782.3
Machine tools, metal-cutting	183.8	14.0	110.0	342.4
Machine tools, metal-forming	35.9	3.4	22.6	70.5
Special dies, tools, jigs, etc.	516.6	50.6	383.2	855.9
Machine tool accessories	200.3	19.5	134.0	416.9

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Power driven hand tools	16.4	1.6	10.1	35.3
Metalworking mach., NEC	27.7	2.5	17.1	57.4
Special industry mach.	107.8	9.8	64.4	211.3
Food pro. machinery	8.5	1.0	5.8	15.5
Printing trades mach.	13.8	1.3	7.7	27.9
Special industry mach.,NEC	75.5	6.5	44.8	147.5
General industrial mach.	294.1	25.8	186.3	662.8
Pumps & pumping equip.	34.5	2.7	19.0	75.9
Ball & roller bearings	19.3	1.8	12.7	40.5
Air & gas compressors	12.2	1.0	8.7	28.6
Blowers & fans	21.4	1.8	11.5	44.1
Industrial patterns	46.9	4.1	37.7	79.0
Speed changers, drivers, and gears	14.2	1.5	9.1	31.5
Industrial furnaces & ovens	19.6	1.6	9.8	58.2
Power transmission equipment, NEC	65.6	5.9	46.3	157.0
General industrial mach., NEC	60.5	5.3	31.5	148.1
Office & computing mach.	104.8	6.2	43.4	133.7
Electronic computing equip.	96.2	5.5	39.0	122.5
Refrigeration and serv. machine	159.7	15.5	105.7	447.1
Refrig., heating equip.	128.4	12.6	89.9	376.7
Misc. machinery, except electrical	261.0	28.2	182.6	467.4
Carburetors, pistons, rings, etc.	84.4	7.6	61.2	136.7
Machinery, exc. elec.NEC	176.6	20.4	121.4	330.7
Electrical, electronic equipment	508.3	54.3	364.0	1,061.3
Electric dist. equip.	19.5	2.1	11.8	42.1
Switchgear, switchboard apparatus	14.9	1.5	8.9	33.2
Electrical industrial apparatus	107.3	11.0	67.2	199.2
Motors & generators	28.1	3.7	18.9	44.5
Industrial controls	31.3	2.6	16.7	59.9
Welding apparatus, elec.	35.3	3.3	23.6	71.1
Carbon & graphite pro.	10.0	.9	6.4	18.5
Household appliances	66.8	8.6	50.1	202.8
Elec. lighting, wiring equipment	14.4	1.9	10.2	35.8
Radio, TV Receiving equipment	17.1	2.5	11.7	26.1
Radio & TV receiving sets	15.0	2.1	10.3	20.9

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Communication equipment	32.6	2.6	12.6	65.7
Radio & TV comm. equip.	32.6	2.6	12.6	65.7
Electric components, accessories	18.9	2.7	11.5	35.9
Electronic components, NEC	14.7	2.1	9.0	27.3
Misc. elec. equip, supplies	230.9	23.0	188.9	453.7
Storage batteries	9.3	1.0	7.1	15.7
Transportation equip.	6,661.3	574.9	5,292.5	13,711.4
Motor vehicles/equip.	6,445.4	555.5	5,165.7	13,113.5
Motor vehicles and car bodies	3,065.2	258.8	2,464.7	7,205.7
Truck & bus bodies	14.1	2.0	9.2	30.7
Motor vehicles parts, accessories	3,342.6	291.8	2,674.8	6,098.7
Truck trailers	7.2	.8	5.6	13.7
Motorhomes	16.3	2.1	11.3	34.7
Aircraft & parts	48.7	4.1	27.2	86.5
Aircraft equip., NEC	31.8	2.4	17.1	53.1
Ship, boat bldg., rpr.	25.5	4.1	19.1	49.7
Misc. transportation equip.	82.7	7.4	52.4	149.5
Instruments, related prods.	151.3	15.2	89.4	320.7
Engineering, scientific instruments	52.0	5.1	36.3	91.3
Measuring, controlling devices	43.2	3.7	22.1	93.6
Instrument to measure electricity	17.1	1.3	7.1	32.6
Measuring, controlling devices, NEC	16.2	1.3	8.8	34.7
Optical instrument and lenses	9.0	1.0	5.0	25.3
Medical inst., supplies	28.2	2.9	13.8	62.5
Surgical appliances and supplies	13.1	1.7	7.7	25.2
Photographic equip. and supplies	6.8	.8	4.1	18.3
Watches, clocks, and watchcases	9.2	1.4	6.2	23.3
Misc. mfg. industries	127.6	15.8	78.5	259.3
Musical instruments	15.0	2.0	11.7	22.3
Toys & sporting goods	51.6	6.7	31.7	113.1
Games, toys, children's vehicles	18.0	2.5	9.8	46.7
Sporting & athletic goods, NEC	33.7	4.2	21.9	66.4

TABLE XV-7. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS AND VALUE ADDED IN MICHIGAN MANUFACTURING ESTABLISHMENTS, BY INDUSTRY GROUP AND INDUSTRY: 1977 (cont.)

Industry and industry group	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c] ($000,000)
		Man-hours[b] (000,000)	Wages[a] ($000,000)	
Pens, office & art goods	6.0	.7	3.3	13.4
Misc. manufactures	50.0	5.8	28.6	98.5
Brooms & brushes	9.1	.9	4.9	18.2
Signs & advertising displays	23.9	2.2	13.6	43.2
Mfg. industries, NEC	15.3	2.5	9.2	33.7
Central admin. offices auxiliaries[d]	2,620.2	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), MC77-A-23(P), Table 3.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements; see Table XV-4 for employer contributions to fringe benefits for 1969.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when employee was not at plant.

c. Adjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales) and adjusting for the net change in finished goods and work in process inventories during the year. An exception is the pickles, sauces, and salad dressings industry, in which establishments reported value of production instead of value of shipments. For this industry, the formula was modified to exclude any change in finished products inventories between the beginning and end of the year.

d. Administrative employees include those involved in general company policy determination, planning, and management. Auxiliary employees are those concerned with storage facilities, garages, repair shops, purchasing offices, sales promotion offices, and research laboratories.

n.a.: not applicable.

NEC.: not elsewhere classified.

TABLE XV-8. HOURS AND EARNINGS FOR PRODUCTION WORKERS IN MANUFACTURING, MICHIGAN AND THE UNITED STATES: 1947-1979

Year	Michigan annual average			United States annual average		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
1947	$ 56.63	40.1	$ 1.42	$ 49.17	40.4	$ 1.22
1948	61.61	39.8	1.55	53.12	40.0	1.33
1949	63.13	39.1	1.62	53.88	39.1	1.38
1950	71.30	41.5	1.72	58.32	40.5	1.44
1951	74.55	40.1	1.86	63.3	40.6	1.56
1952	81.34	41.0	1.98	67.16	40.7	1.65
1953	86.65	41.5	2.09	70.47	40.5	1.74
1954	87.84	40.8	2.15	70.49	39.6	1.78
1955	94.84	42.3	2.24	75.70	40.7	1.86
1956	94.98	40.8	2.33	78.78	40.4	1.95
1957	97.64	40.0	2.44	81.59	39.8	2.05
1958	99.13	39.4	2.52	82.71	39.2	2.11
1959	108.71	40.9	2.66	88.26	40.3	2.19
1960	112.00	40.8	2.75	89.72	39.7	2.26
1961	112.32	40.1	2.80	92.34	39.8	2.32
1962	121.43	41.8	2.91	96.56	40.4	2.39
1963	128.27	42.5	3.02	99.63	40.5	2.46
1964	135.11	43.5	3.11	102.97	40.7	2.53
1965	143.79	44.6	3.22	107.53	41.2	2.61
1966	145.10	43.3	3.35	112.34	41.3	2.72
1967	145.78	42.0	3.47	114.90	40.6	2.83
1968	164.15	43.3	3.79	122.51	40.7	3.01
1969	166.78	42.0	3.97	129.51	40.6	3.19
1970	168.33	40.6	4.15	133.73	39.8	3.36
1971	188.19	41.0	4.59	142.44	39.9	3.57
1972	211.52	42.8	4.94	154.69	40.6	3.81
1973	228.63	43.4	5.27	166.06	40.7	4.08
1974	232.19	41.3	5.62	176.40	40.0	4.41
1975	250.76	40.8	6.15	189.51	39.4	4.81
1976	290.97	42.7	6.81	207.60	40.0	5.19
1977	326.27	43.3	7.54	226.89	40.3	5.63
1978	349.50	43.0	8.13	249.27	40.4	6.17
1979	359.72	41.2	8.73	268.94	40.2	6.69

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: March 1980), vol. 27, no. 3, Table C-1; and Michigan Employment Security Commission, special release.

NOTE: The dollar figures are cash earnings before payroll deductions and do not include fringe benefits such as company paid health and welfare premiums and employer contributions to Social Security.

TABLE XV-9. HOURS AND EARNINGS FOR PRODUCTION WORKERS IN MANUFACTURING, SELECTED MICHIGAN LABOR MARKET AREAS: 1977-1979

Area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	1977	1978	1979	1977	1978	1979	1977	1978	1979
Ann Arbor	$363.67	$390.05	$390.59	44.6	44.4	42.4	$ 8.15	$ 8.79	$ 9.21
Battle Creek	306.19	336.99	352.72	41.4	41.8	40.9	7.40	8.06	8.62
Bay City	347.52	330.21	319.15	48.1	43.3	41.4	7.23	7.63	7.71
Benton Harbor	252.24	272.16	284.98	41.7	41.5	40.7	6.05	6.56	7.00
Detroit	349.78	381.23	393.47	43.5	43.5	42.3	8.04	8.78	9.30
Flint	391.53	410.57	405.63	46.6	45.7	41.8	8.40	8.98	9.70
Grand Rapids	256.26	273.90	294.68	41.6	41.4	40.5	6.16	6.62	7.28
Jackson	272.56	308.04	323.48	41.9	43.3	42.0	6.51	7.11	7.70
Kalamazoo-Portage	279.17	297.37	321.76	41.5	41.0	40.2	6.73	7.25	8.00
Lansing-East Lansing	304.51	357.56	372.41	43.7	42.1	40.3	7.79	8.49	9.24
Muskegon-Muskegon Heights-Norton Shores	270.90	292.49	305.68	42.0	41.5	40.3	6.45	7.05	7.59
Saginaw	388.82	418.84	404.66	45.7	45.3	41.3	8.51	9.25	9.80
Upper Peninsula	204.26	224.32	248.38	39.6	40.2	40.4	5.16	5.58	6.15
Michigan	326.27	349.50	359.72	43.3	43.0	41.2	7.54	8.13	8.73

SOURCE: Michigan Employment Security Commission, special release.

NOTE: Dollar figures include cash earnings, before payroll deductions, and exclude fringe benefits such as company paid health and welfare premiums and employer contributions to Social Security Trust Funds.

TABLE XV-12. LABOR TURNOVER RATES IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP: 1979

Industry group	Accessions			Separations		
	New hires	Recalls	Total	Quits	Layoffs	Total
			Michigan			
Furniture and fixtures	3.1	.4	3.6	2.0	.9	3.7
Primary metals	.9	.8	2.0	.6	2.9	4.3
Fabricated metals	1.6	1.0	3.1	1.0	2.6	4.4
Nonelectrical machinery	1.8	.5	2.5	.9	.9	2.5
Electrical machinery	1.4	1.0	3.0	1.1	2.0	4.2
Transportation equipment	.9	.4	1.7	.6	1.7	3.0
Motor vehicles only	.9	.4	1.7	.5	1.7	3.0
Total, durable goods	1.4	.6	2.4	.9	1.8	3.4
Food and kindred products	3.2	2.0	5.3	1.9	2.5	5.2
Textile mill products and apparel	1.4	1.8	3.7	1.0	4.4	5.8
Paper and allied products	1.0	.3	2.1	.7	.8	2.6
Chemicals, petroleum, and related products	1.1	.3	1.6	.9	.6	1.8
Total, nondurable goods	1.8	1.1	3.1	1.2	1.7	3.6
TOTAL	1.5	.7	2.5	.9	1.7	3.4
			United States			
Furniture and fixtures	4.3	.6	5.1	3.2	.9	5.3
Primary metals	1.7	.6	2.6	1.0	1.0	2.9
Fabricated metals	3.1	.7	4.0	2.0	1.2	4.1
Nonelectrical machinery	2.4	.3	2.9	1.4	.5	2.6
Electrical machinery	2.5	.4	3.4	1.7	.6	3.2
Transportation equipment	2.0	.9	3.4	1.1	1.6	3.5
Motor vehicles only	1.4	1.0	3.0	.9	2.1	3.9
Total, durable goods	2.7	.6	3.6	1.7	1.0	3.6
Food and kindred products	4.7	1.7	6.6	3.3	2.3	6.5
Textile mill products and apparel	3.7	1.1	5.5	3.1	1.4	5.4
Paper and allied products	2.1	.5	2.8	1.4	.7	2.9
Chemicals, petroleum, and related products	1.4	.2	1.8	.8	.3	1.7
Total, nondurable goods	3.3	.9	4.5	2.5	1.3	4.6
TOTAL	2.9	.7	3.9	2.0	1.1	4.0

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings, vol. 27, no. 4 (Washington, D.C.: March 1980), Table D-2.

TABLE XV-13. LABOR TURNOVER RATES IN MANUFACTURING IN THE DETROIT, FLINT, GRAND RAPIDS, AND LANSING-EAST LANSING LABOR MARKETS: 1978 AND 1979

Area	Accessions			Separations		
	New hires	Recalls	Total	Quits	Layoffs	Total
			1978			
Detroit	1.7	.5	2.6	1.2	.9	2.5
Flint	1.1	.2	1.9	.5	.5	2.0
Grand Rapids	2.7	.5	3.7	1.6	.7	3.1
Lansing-East Lansing	1.9	.3	2.5	.7	.5	2.0
			1979			
Detroit	1.2	.6	2.2	.8	1.7	3.2
Flint	1.3	.2	1.7	.4	1.4	2.6
Grand Rapids	2.2	.7	3.0	1.5	1.3	3.5
Lansing-East Lansing	1.0	.3	1.4	.5	.3	1.5

SOURCE: Michigan Employment Security Commission, special release.

TABLE XV-14. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS, AND VALUE ADDED IN MANUFACTURING ESTABLISHMENTS IN STANDARD METROPOLITAN STATISTICAL AREAS AND SELECTED COUNTIES: 1977

Area	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c]
		Hours[b] (000,000)	Wages[a] ($000,000)	
Standard Metropolitan Statistical Area				
Ann Arbor	814.1	65.9	565.4	1,503.7
Battle Creek	381.6	32.5	258.9	1,025.5
Bay City	168.0	16.3	124.2	346.4
Detroit	10,946.4	768.2	6,262.5	18,118.8
Grand Rapids	1,162.9	123.3	786.8	2,581.5
Jackson	254.6	25.0	166.2	551.2
Kalamazoo-Portage	554.4	46.8	336.6	1,137.6
Lansing-East Lansing	782.1	72.4	599.0	1,438.2
Muskegon-Norton Shores Muskegon Heights	374.9	32.2	277.6	673.0
Saginaw	708.7	59.5	548.5	1,461.5
Toledo, Ohio-Mich.	1,480.3	128.7	964.3	3,215.9
Portion in Ohio	1,341.1	114.0	850.9	2,885.7
Portion in Mich.	166.2	14.7	113.4	330.2
Counties				
Allegan	110.7	13.8	77.1	277.8
Alpena	44.0	4.7	32.3	89.3
Antrim	18.1	2.6	13.8	39.2
Baraga	8.9	1.2	6.4	14.1
Barry	38.7	3.8	24.8	81.0
Bay	168.0	16.3	124.2	346.4
Benzie	7.1	1.2	5.2	21.7
Berrien	354.5	35.7	226.8	743.2
Branch	56.4	8.0	40.4	129.2
Calhoun	342.9	28.7	234.1	944.5
Cass	51.0	6.8	37.0	98.4
Charlevoix	24.4	3.3	17.3	70.9
Cheboygan	13.4	1.5	9.3	46.1
Clare	9.2	1.5	6.5	20.8
Clinton	26.6	3.1	20.1	54.4
Crawford	7.6	.9	4.2	23.7
Delta	48.2	4.9	36.1	128.9
Dickinson	26.4	3.5	17.8	54.1
Eaton	54.5	6.2	36.8	114.2
Emmet	14.0	2.1	10.0	24.9

TABLE XV-14. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS, AND VALUE ADDED IN MANUFACTURING ESTABLISHMENTS IN STANDARD METROPOLITAN STATISTICAL AREAS AND SELECTED COUNTIES: 1977 (cont.)

Area	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c]
		Hours[b] (000,000)	Wages[a] ($000,000)	
Counties (cont.)				
Gladwin	6.8	.8	4.8	15.2
Gogebic	8.2	1.4	6.4	16.0
Grand Traverse	39.9	5.2	26.1	107.1
Gratiot	34.5	4.4	26.3	109.3
Hillsdale	56.6	7.1	41.9	135.5
Houghton	6.6	1.1	4.6	13.0
Huron	24.7	3.1	17.5	53.9
Ingham	629.9	54.1	487.4	1,096.6
Ionia	71.1	9.0	54.7	173.0
Iosco	11.0	2.0	8.8	27.9
Iron	4.9	.8	3.9	8.5
Isabella	13.2	1.6	9.1	31.0
Jackson	254.6	25.0	166.2	551.2
Kalamazoo	499.6	39.4	296.4	1,007.9
Kent	920.5	94.8	630.8	2,051.6
Lapeer	36.3	4.0	22.8	70.1
Lenawee	160.8	17.1	116.5	341.7
Livingston	53.7	5.9	32.6	133.0
Macomb	2,113.5	148.1	1,126.8	3,126.3
Manistee	35.7	3.9	25.4	82.5
Marquette	12.4	1.3	7.6	24.9
Mason	29.9	3.6	20.1	83.9
Mecosta	14.5	2.5	10.9	40.6
Menominee	29.5	4.6	21.3	57.0
Monroe	166.2	14.7	113.4	330.2
Montcalm	51.9	6.9	37.5	138.4
Montmorency	5.3	.9	3.5	16.4
Muskegon	368.4	31.0	273.2	656.2
Newaygo	24.6	1.6	7.2	46.9
Oakland	1,920.8	149.8	1,159.3	3,629.0
Oceana	6.2	1.2	4.4	16.8
Ogemaw	9.2	1.2	6.2	21.3
Osceola	21.1	2.7	15.0	46.6
Otsego	9.7	1.2	7.3	18.7
Ottawa	242.4	28.5	156.0	529.9

TABLE XV-14. ANNUAL PAYROLL, MAN-HOURS, AND WAGES OF PRODUCTION WORKERS, AND VALUE ADDED IN MANUFACTURING ESTABLISHMENTS IN STANDARD METROPOLITAN STATISTICAL AREAS AND SELECTED COUNTIES: 1977 (cont.)

Area	Yearly payroll[a] ($000,000)	Production workers		Value added by manufacture[c]
		Hours[b] (000,000)	Wages[a] ($000,000)	
Counties (cont.)				
Saginaw	708.7	59.5	548.5	1,461.5
St. Clair	122.9	13.0	79.1	254.7
St. Joseph	111.6	14.0	77.1	294.4
Sanilac	38.6	5.8	26.6	70.2
Shiawassee	64.3	7.4	41.0	117.9
Tuscola	37.3	4.8	26.3	94.1
Van Buren	54.8	7.4	40.2	129.7
Washtenaw	814.1	65.9	565.4	1,503.7
Wayne	6,699.2	447.4	3,841.9	10,905.7
Wexford	29.0	4.1	18.6	60.4
All other counties	2,073.1	172.7	1,535.4	4,457.2
Michigan	20,072.4	1,632.3	12,732.2	37,480.4

SOURCE: Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), MC77-A-23(P), Table 2.

NOTE: Data for the Flint SMSA are withheld to avoid disclosure of the operations of a single company.

a. Includes all forms of cash compensation before deductions for Social Security, income tax, and so forth. Does not include supplements.

b. Man-hours worked or paid for at the plant, including actual overtime hours. Excludes hours paid for vacations, holidays, or sick leave, when employee was not at the plant.

c. Adjusted value added is derived by subtracting the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work from the value of shipments (including resales) and adjusting for the net change in finished goods and work in process inventories during the year.

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY: 1967, 1972, AND 1977

County	Number of establishments with fewer than 20 employees			Total number of establishments		
	1967	1972	1977	1967	1972	1977
Alcona	19	18	n.a.	20	20	n.a.
Alger	18	17	n.a.	23	21	n.a.
Allegan	76	85	85	115	137	151
Alpena	32	35	44	44	45	57
Antrim	23	23	40	33	31	51
Arenac	13	10	n.a.	17	17	n.a.
Baraga	40	35	36	48	42	43
Barry	27	29	23	39	42	37
Bay	116	103	96	171	155	145
Benzie	9	11	13	18	21	21
Berrien	202	225	232	335	354	371
Branch	37	44	52	62	76	93
Calhoun	112	120	117	196	202	203
Cass	39	57	58	72	90	92
Charlevoix	24	28	34	38	43	52
Cheboygan	26	28	29	35	37	38
Chippewa	31	26	n.a.	35	29	n.a.
Clare	19	28	32	25	35	44
Clinton	24	28	29	34	40	40
Crawford	9	12	16	13	14	22
Delta	76	53	56	96	69	74
Dickinson	50	43	51	64	59	70
Eaton	47	63	57	74	87	91
Emmet	20	19	29	29	28	41
Genesee	198	207	n.a.	286	286	n.a.
Gladwin	7	17	19	11	24	25
Gogebic	46	40	42	57	49	52
Grand Traverse	33	43	61	55	69	92
Gratiot	26	26	22	44	47	38
Hillsdale	48	47	57	72	82	89
Houghton	45	46	34	58	55	47
Huron	40	40	43	62	57	63
Ingham	159	151	177	239	235	258
Ionia	46	42	47	72	71	74
Iosco	26	26	25	34	36	42
Iron	37	34	38	39	36	43
Isabella	20	22	19	27	30	27
Jackson	195	185	215	310	296	333
Kalamazoo	155	183	227	297	314	367
Kalkaska	10	10	n.a.	12	11	n.a.

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY: 1967, 1972, AND 1977 (cont.)

County	Number of establishments with fewer than 20 employees			Total number of establishments		
	1967	1972	1977	1967	1972	1977
Kent	552	542	605	895	891	992
Keweenaw	6	5	n.a.	6	6	n.a.
Lake	10	11	n.a.	11	13	n.a.
Lapeer	34	37	47	56	60	79
Leelanau	11	18	n.a.	15	20	n.a.
Lenawee	98	91	109	166	160	176
Livingston	55	65	65	97	113	120
Luce	25	23	n.a.	26	25	n.a.
Mackinac	22	25	n.a.	22	25	n.a.
Macomb	818	1,007	1,150	1,302	1,484	1,743
Manistee	31	23	28	46	41	44
Marquette	56	48	47	70	61	60
Mason	32	27	28	52	52	51
Mecosta	18	16	22	33	25	38
Menominee	67	51	54	94	81	83
Midland	24	25	n.a.	39	41	n.a.
Missaukee	10	8	n.a.	10	8	n.a.
Monroe	82	78	86	124	123	139
Montcalm	40	42	38	59	60	60
Montmorency	26	25	21	29	29	25
Muskegon	138	140	157	245	234	273
Newaygo	27	25	29	35	32	36
Oakland	1,010	1,222	1,536	1,576	1,839	2,290
Oceana	16	22	20	27	33	31
Ogemaw	20	25	27	25	33	37
Ontonagon	29	7	n.a.	32	9	n.a.
Osceola	20	22	26	31	31	35
Oscoda	23	25	n.a.	23	28	n.a.
Otsego	21	22	35	24	28	40
Ottawa	162	191	225	279	321	367
Presque Isle	21	21	n.a.	26	23	n.a.
Roscommon	26	19	n.a.	28	22	n.a.
Saginaw	152	141	149	252	229	236
St. Clair	130	134	143	199	211	214
St. Joseph	66	78	92	137	155	175
Sanilac	46	53	56	73	79	87
Schoolcraft	24	19	n.a.	27	21	n.a.
Shiawassee	55	48	55	89	84	92
Tuscola	43	41	46	68	64	75
Van Buren	76	63	78	118	113	123

TABLE XV-15. DISTRIBUTION OF MICHIGAN MANUFACTURING ESTABLISHMENTS, BY COUNTY: 1967, 1972, AND 1977 (cont.)

County	Number of establishments with fewer than 20 employees			Total number of establishments		
	1976	1972	1977	1967	1972	1977
Washtenaw	183	204	223	289	306	343
Wayne	2,666	2,470	2,250	4,222	3,803	3,491
Wexford	32	31	52	52	54	74
TOTAL	9,183	9,450	10,248	14,340	14,463	15,655

SOURCE: Bureau of the Census, U.S. Census of Manufactures, 1967, Area Series, Michigan (Washington, D.C.: 1970), MC67(3)-23, Table 9; U.S. Census of Manufactures, 1972, Area Series, Michigan (Washington, D.C.: 1975), MC72(3)-23, Table 9; and U.S. Census of Manufactures, 1978, Area Series, Michigan (Washington, D.C.: 1979), MC77(A)-23, Table 9.

TABLE XV-10. HOURS AND EARNINGS OF PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP: 1979

Industry group	Michigan			United States		
	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings
Durable goods	41.4	$ 9.01	$373.10	40.8	$ 7.12	$290.50
Lumber and wood products	38.6	5.52	212.96	39.5	6.08	240.16
Furniture and fixtures	39.5	6.37	251.50	38.6	5.06	195.22
Primary metal products	41.4	9.59	397.07	41.4	8.97	371.36
Fabricated metal products	40.0	8.45	337.88	40.8	6.82	278.26
Nonelectrical machinery	43.3	8.82	381.82	41.8	7.33	306.39
Electrical machinery	40.5	7.43	300.75	40.3	6.31	254.29
Transportation equipment	41.6	9.83	409.09	41.2	8.53	351.44
Motor vehicle and equipment	41.6	9.90	411.80	41.2	9.07	373.68
Nondurable goods	40.5	7.48	302.90	39.3	6.00	235.80
Food and kindred products	41.3	7.40	305.54	39.9	6.27	250.17
Textile mill products & apparel	38.8	8.54	331.47	37.8	4.45	168.53
Paper and allied products	43.4	7.59	329.36	42.6	7.12	303.31
Printing, publishing, and allied industries	37.1	7.70	285.82	37.5	6.91	259.13
Chemicals and allied products	42.3	8.40	355.32	41.8	7.59	317.26
TOTAL	41.2	8.73	359.72	40.2	6.69	268.94

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: March 1980), vol. 27, no. 3, Table C-2; and Michigan Employment Security Commission, special release.

TABLE XV-11. LABOR TURNOVER RATES IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES: 1963-1979

	Accessions						Separations					
	Michigan			United States			Michigan			United States		
Year	New hires	Recalls	Total	New hires	Recalls	Total	Quits	Layoffs	Total	Quits	Layoffs	Total
1963	1.4	n.a.	3.6	2.4	n.a.	3.9	.6	1.8	3.7	1.4	1.8	3.9
1964	2.0	n.a.	3.8	2.6	n.a.	4.0	.9	1.6	3.8	1.5	1.7	3.9
1965	2.5	n.a.	4.2	3.1	n.a.	4.3	1.3	1.9	4.1	1.9	1.4	4.1
1966	3.0	n.a.	4.6	3.8	n.a.	5.0	1.7	2.1	5.1	2.6	1.2	4.6
1967	2.4	n.a.	4.1	3.3	n.a.	4.4	1.5	2.3	4.8	2.3	1.4	4.6
1968	2.8	n.a.	4.6	3.5	n.a.	4.6	1.8	1.8	4.7	2.5	1.2	4.6
1969	2.9	n.a.	4.6	3.7	n.a.	4.7	1.9	2.3	5.3	2.7	1.2	4.9
1970	1.5	n.a.	4.2	2.8	n.a.	4.0	1.1	3.7	5.8	2.1	1.8	4.8
1971	1.4	n.a.	3.4	2.6	n.a.	3.9	.9	2.1	3.9	1.8	1.6	4.2
1972	2.4	n.a.	3.7	3.3	n.a.	4.4	1.3	1.2	3.5	2.2	1.1	4.2
1973	2.7	n.a.	3.7	3.9	n.a.	4.8	1.6	.8	3.6	2.7	.9	4.6
1974	1.7	n.a.	3.4	3.2	n.a.	4.2	1.2	2.8	5.1	2.3	1.5	4.8
1975	.7	n.a.	3.4	2.0	n.a.	3.7	.6	3.2	4.6	1.4	2.1	4.2
1976	1.7	.8	3.1	2.6	1.0	3.9	.8	1.1	2.7	1.7	1.3	3.8
1977	1.8	.6	3.0	2.8	.9	4.0	.9	1.1	2.8	1.9	1.2	3.8
1978	1.6	.5	2.3	3.1	.7	4.1	.9	.8	2.2	2.1	.9	3.9
1979	1.5	.7	2.5	2.9	.7	3.9	.9	1.7	3.4	2.0	1.1	4.0

SOURCES: Michigan Employment Security Commission, special release; Bureau of Labor Statistics, Handbook of Labor Statistics 1975 - Reference Edition, Bulletin 1865 (Washington, D.C.: 1975) Table 53, and Employment and Earnings, vol. 27, no. 3 (Washington, D.C.: March 1980), Table D-1.

n.a.: not available.

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in manufacturing			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Genesee	62.25	2,162,586	60.43	2,346,145
Saginaw	55.29	846,937	55.65	962,773
St. Joseph	54.24	131,806	55.08	148,751
Macomb	56.11	2,170,807	55.07	2,463,691
Midland	56.57	310,652	54.49	326,652
Lenawee	50.47	203,898	49.35	219,782
Manistee	47.51	40,883	49.26	47,449
Berrien	49.16	444,827	48.82	482,469
Wayne	47.49	9,038,701	48.04	10,130,953
Ottawa	49.39	327,059	48.01	378,584
Muskegon	47.08	373,371	47.12	418,777
Hillsdale	45.45	69,479	46.97	81,885
Cass	43.70	60,991	46.84	77,825
Osceola	44.25	24,401	45.97	27,642
Calhoun	44.55	393,387	45.05	438,789
Washtenaw	44.96	920,760	45.05	1,104,252
Barry	44.73	49,303	43.58	54,590
Allegan	42.56	90,085	43.12	110,128
Charlevoix	41.59	30,813	42.91	36,426
Ionia	41.32	65,265	41.83	77,694
Menominee	43.25	36,135	41.71	40,527
Kalamazoo	42.07	557,971	40.83	610,163
Montcalm	44.10	74,599	40.47	73,990
Bay	38.35	206,001	39.31	228,636
Monroe	41.10	171,485	39.21	181,496
Baraga	39.98	10,390	38.61	12,411
Alger	36.50	9,810	38.33	11,194
Antrim	39.34	17,180	37.90	19,923
Kent	37.95	1,019,434	37.81	1,186,893
Jackson	36.99	293,886	37.57	338,132
Delta	36.77	57,217	36.99	61,521
Gratiot	35.79	62,945	36.88	70,112
Sanilac	34.20	44,923	36.82	54,120
Mason	36.34	34,184	36.62	39,290
Alpena	35.57	51,626	36.43	59,070

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in manufacturing			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Branch	34.24	62,113	36.17	76,739
Montmorency	29.63	5,203	35.39	7,190
Wexford	34.37	35,307	34.94	39,621
Shiawassee	36.49	73,763	34.76	75,844
Ingham	35.95	798,175	34.54	890,580
Newaygo	34.67	28,507	34.00	31,385
Van Buren	33.26	60,080	33.43	70,243
Eaton	32.66	54,246	33.00	60,149
Oakland	34.09	2,230,493	32.82	2,513,497
St. Clair	28.91	143,043	28.01	157,252
Lapeer	26.55	50,188	27.36	58,568
Cheboygan	25.81	16,116	26.48	19,086
Livingston	25.76	51,124	24.76	60,017
Clinton	24.98	25,442	24.58	27,996
Arenac	27.59	10,293	24.53	8,835
Crawford	26.24	7,508	24.34	7,326
Tuscola	23.62	40,399	23.87	45,952
Dickinson	22.59	29,172	23.49	34,994
Huron	19.81	27,219	23.25	37,955
Ogemaw	20.57	8,268	23.09	10,485
Alcona	18.01	2,917	23.02	3,873
Otsego	21.47	13,810	22.05	16,326
Gladwin	18.71	6,174	21.98	8,161
Benzie	19.78	6,311	21.04	7,457
Oscoda	21.43	2,710	20.32	2,967
Clare	15.96	7,604	18.52	10,166
Gogebic	17.60	9,666	18.12	10,428
Iron	15.45	6,505	16.93	7,356
Grand Traverse	16.15	44,342	16.86	54,602
Oceana	16.61	7,568	16.69	8,848
Schoolcraft	16.27	4,804	16.33	5,216
Roscommon	15.56	5,469	15.91	6,151
Emmet	14.22	14,161	15.77	17,580
Ontonagon	13.87	6,920	15.57	7,938
Mecosta	14.95	13,475	15.54	15,636

TABLE XV-16. LABOR AND PROPRIETORS' EARNINGS IN MICHIGAN MANUFACTURING, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in manufacturing			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Iosco	10.31	11,146	11.54	13,642
Isabella	9.91	17,505	9.85	20,093
Keweenaw	12.17	590	9.29	484
Missaukee	6.50	1,190	7.80	1,696
Houghton	5.51	5,961	7.57	8,874
Leelanau	6.21	1,948	7.08	2,374
Luce	5.73	1,841	4.69	1,679
Chippewa	3.05	3,778	4.37	4,193
Mackinac	3.87	1,444	3.88	1,765
Marquette	3.49	12,272	3.14	12,956
Presque Isle	3.26	1,311	3.02	1,570
Kalkaska	7.15	2,613	(D)	(D)
Lake	4.57	634	(D)	(D)
Michigan	43.94	24,375,125	43.64	27,412,180
United States	26.26	306,582,000	26.22	345,771,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XV-17. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN MANUFACTURING: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Houghton	32	49	Tuscola	47	14
Missaukee	601	43	Iron	199	13
Huron	42	39	Macomb	64	13
Montmorency	80	38	Oakland	62	13
Clare	118	34	Osceola	16	13
Alcona	227	33	St. Joseph	53	13
Gladwin	55	32	Calhoun	50	12
Cass	69	28	Ingham	49	12
Ogemaw	130	27	Menominee	65	12
Branch	93	24	Muskegon	51	12
Emmet	73	24	Roscommon	237	12
Grand Traverse	124	23	Wayne	52	12
Allegan	72	22	Wexford	81	12
Iosco	101	22	Barry	45	11
Leelanau	48	22	Bay	67	11
Mackinac	12	22	Chippewa	62	11
Dickinson	118	20	Eaton	62	11
Presque Isle	62	20	Gratiot	54	11
Sanilac	64	20	Clinton	85	10
Washtenaw	92	20	Newaygo	55	10
Baraga	49	19	St. Clair	36	10
Ionia	80	19	Kalamazoo	58	9
Benzie	107	18	Oscoda	143	9
Charlevoix	113	18	Schoolcraft	71	9
Cheboygan	47	18	Berrien	24	8
Hillsdale	66	18	Delta	82	8
Otsego	50	18	Genesee	79	8
Lapeer	79	17	Gogebic	3	8
Livingston	86	17	Lenawee	25	8
Oceana	145	17	Marquette	45	6
Van Buren	36	17	Monroe	46	6
Antrim	60	16	Midland	54	5
Kent	62	16	Shiawassee	32	3
Manistee	117	16	Montcalm	50	-1
Mecosta	58	16	Crawford	182	-2
Ottawa	76	16	Luce	2	-9
Isabella	115	15	Arenac	164	-14
Jackson	35	15	Keweenaw	-63	-18
Mason	67	15	Kalkaska	(D)	(D)
Ontonagon	47	15	Lake	(D)	(D)
Alger	59	14			
Alpena	57	14	Michigan	58	12
Saginaw	69	14	United States	57	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XV-18. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1978

County	Percentage		County	Percentage	
	1977	1978		1977	1978
Genesee	60.61	58.83	Allegan	20.36	19.66
Saginaw	52.68	53.10	Dickinson	18.81	19.60
Macomb	48.17	47.13	Kalamazoo	19.79	19.15
Wayne	41.84	42.62	Ogemaw	16.58	18.62
Cass	40.67	42.20	Huron	14.66	18.56
Washtenaw	42.03	41.95	Lapeer	17.33	18.41
Muskegon	41.41	41.40	St. Clair	18.18	17.98
Berrien	40.92	40.73	Gratiot	15.24	16.84
Hillsdale	38.95	40.17	Iron	14.16	15.23
St. Joseph	39.93	40.16	Roscommon	13.71	14.12
Barry	41.16	40.05	Emmet	12.65	13.93
Charlevoix	38.13	39.58	Clare	10.69	13.44
Ottawa	40.75	39.20	Gogebic	12.02	12.87
Lenawee	36.70	36.46	Cheboygan	11.77	11.94
Antrim	37.44	35.57	Iosco	9.91	11.16
Monroe	33.15	33.93	Keweenaw	12.17	9.29
Bay	32.84	33.78	Grand Traverse	8.77	9.28
Menominee	34.77	33.65	Isabella	8.28	8.15
Montcalm	36.81	32.70	Oceana	7.18	7.90
Ingham	33.85	32.50	Missaukee	5.17	6.61
Jackson	29.77	30.68	Alger	5.04	6.52
Oakland	31.49	30.53	Newaygo	6.01	5.91
Shiawassee	31.81	30.17	Houghton	3.09	5.27
Eaton	29.23	29.30	Schoolcraft	3.82	4.29
Branch	28.95	29.28	Leelanau	3.31	3.92
Kent	28.71	28.78	Chippewa	2.23	3.43
Ionia	28.81	27.08	Presque Isle	2.60	2.50
Manistee	23.36	25.76	Mackinac	2.37	2.44
Calhoun	22.65	24.19	Marquette	1.74	1.65
Clinton	24.38	24.04	Midland	.8	.92
Van Buren	23.59	23.48	Alcona	(D)	(D)
Alpena	22.49	23.27	Benzie	(D)	(D)
Arenac	26.36	23.05	Gladwin	16.52	(D)
Mason	22.29	22.65	Kalkaska	(D)	(D)
Crawford	23.93	21.60	Lake	4.57	(D)
Osceola	21.13	21.28	Luce	5.16	(D)
Sanilac	18.87	21.23	Mecosta	6.37	(D)
Baraga	20.74	21.22	Montmorency	21.72	(D)
Delta	21.31	21.07	Ontonagon	6.91	(D)
Otsego	19.69	20.44	Oscoda	(D)	(D)
Livingston	21.71	20.30			
Wexford	21.25	20.16	Michigan	37.26	37.16
Tuscola	19.08	20.01	United States	16.79	16.99

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.
(D): Withheld to avoid disclosing data for individual companies.

TABLE XV-19. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN NON-DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1978

County	Percentage 1977	1978	County	Percentage 1977	1978
Midland	55.77	53.58	Ogemaw	4.00	4.48
Alger	31.47	31.81	Livingston	4.05	4.46
Newaygo	28.66	28.09	Dickinson	3.79	3.89
Osceola	23.12	24.70	Tuscola	4.54	3.86
Manistee	24.15	23.50	Eaton	3.43	3.70
Allegan	22.20	23.46	Barry	3.56	3.53
Kalamazoo	22.28	21.68	Charlevoix	3.45	3.33
Calhoun	21.90	20.86	Leelanau	2.89	3.16
Gratiot	20.55	20.03	Washtenaw	2.93	3.09
Baraga	19.24	17.39	Crawford	2.31	2.74
Delta	15.46	15.91	Saginaw	2.61	2.55
Sanilac	15.33	15.60	Antrim	1.90	2.33
St. Joseph	14.30	14.92	Houghton	2.42	2.30
Wexford	13.12	14.78	Oakland	2.61	2.29
Ionia	12.51	14.75	Ingham	2.10	2.05
Cheboygan	14.04	14.54	Emmet	1.57	1.84
Mason	14.05	13.97	Roscommon	1.85	1.78
Alpena	13.09	13.15	Iron	1.29	1.70
Lenawee	13.76	12.89	Isabella	1.63	1.70
Schoolcraft	12.45	12.04	Otsego	1.78	1.61
St. Clair	10.73	10.03	Genesee	1.64	1.60
Van Buren	9.67	9.94	Arenac	1.23	1.49
Kent	9.25	9.03	Marquette	1.75	1.49
Lapeer	9.22	8.95	Mackinac	1.50	1.43
Ottawa	8.64	8.81	Missaukee	1.33	1.19
Oceana	9.43	8.79	Chippewa	.82	.94
Berrien	8.24	8.09	Clinton	.60	.54
Menominee	8.48	8.06	Presque Isle	.66	.52
Macomb	7.95	7.94	Iosco	.40	.38
Montcalm	7.29	7.77	Keewenaw	0	0
Grand Traverse	7.37	7.58	Lake	0	0
Branch	5.29	6.89	Alcona	(D)	(D)
Jackson	7.21	6.89	Benzie	(D)	(D)
Hillsdale	6.50	6.61	Gladwin	2.19	(D)
Muskegon	5.67	5.72	Kalkaska	(D)	(D)
Bay	5.51	5.53	Luce	.58	(D)
Wayne	5.65	5.43	Mecosta	8.58	(D)
Monroe	6.94	5.29	Montmorency	7.90	(D)
Gogebic	5.58	5.25	Ontonagon	6.96	(D)
Clare	5.28	5.08	Oscoda	(D)	(D)
Huron	5.15	4.68			
Cass	3.02	4.64	Michigan	6.68	6.48
Shiawassee	4.67	4.59	United States	9.46	9.22

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XV-20. SHIPMENTS OF IRON AND STEEL CASTINGS AND RAW STEEL FROM MICHIGAN FOUNDRIES AND STEEL WORKS: 1951-1978

(In thousands of short tons)

Year	Gray iron castings	Malleable iron castings	Steel castings	Steel
1951	2,101	264	141	4,829
1952	1,893	249	93	4,552
1953	2,331	268	80	5,142
1954	2,004	219	52	4,224
1955	2,668	300	63	5,999
1956	1,986	225	63	6,231
1957	1,923	226	51	6,220
1958	1,441	174	39	4,568[a]
1959	1,893	256	51	5,634[a]
1960	1,913	248	40	6,529[a]
1961	1,669	207	40	6,644[a]
1962	2,007	252	47	7,126[a]
1963	2,156	285	50	8,447[a]
1964	2,291	298	55	9,435
1965	2,721	353	58	8,990
1966	2,712	341	66	10,004
1967	2,203	309	55	9,247
1968	2,500	248	53	9,220
1969	2,632	359	57	10,039
1970	2,029	283	50	9,581
1971	2,374	352	42	9,069
1972	2,695	412	57	9,380
1973	2,863	436	67	10,945
1974	2,601	342	62	10,459
1975	2,131	300	53	9,093
1976	2,762	449	52	10,382
1977	3,113	399	45	10,051
1978	3,208	456	54	10,789

SOURCE: Bureau of the Census, Facts for Industry, Series M21C (discontinued 1958), and Current Industrial Reports, Series M33A, Annual Summaries, 1958 through 1978 (Washington, D.C.: annually), Table 10 (1978).

a. Includes Wisconsin.

TABLE XV-21. RAW STEEL PRODUCTION IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1971-1979

(000 tons)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1971	758	666	741	809	938	831	826	691	637	729	711	734
1972	779	734	797	792	840	705	680	799	748	828	823	854
1973	807	786	895	936	995	925	930	920	930	968	890	963
1974	935	824	916	841	871	864	919	864	837	949	824	815
1975	867	787	852	738	693	654	693	710	776	783	708	766
1976	818	823	859	821	966	927	888	896	805	833	904	849
1977	823	796	884	823	877	891	811	908	875	768	799	775
1978	772	741	912	807	902	909	978	940	950	1,035	920	926
1979	1,002	878	1,044	988	1,025	981	968	942	819	823	753	751
						United States						
1971	11,274	10,874	12,645	12,565	12,920	11,491	9,942	5,774	7,678	8,211	8,053	8,784
1972	10,001	9,980	11,588	11,588	11,937	10,980	10,341	10,842	10,913	11,657	11,398	11,878
1973	12,372	11,626	13,088	12,789	13,174	12,488	12,290	12,181	12,229	12,876	12,587	12,722
1974	12,726	11,598	12,758	12,442	12,752	12,185	12,155	11,837	11,849	12,617	11,614	10,960
1975	11,584	10,862	11,980	10,667	9,864	8,744	8,370	8,648	9,295	9,214	8,709	8,846
1976	9,835	9,907	11,294	11,439	12,136	11,605	11,400	11,128	10,463	10,295	9,227	9,215
1977	9,089	8,859	11,049	11,167	12,201	11,384	10,319	10,392	10,050	10,442	9,748	10,031
1978	10,301	9,643	11,082	11,528	12,320	11,861	11,387	11,550	11,467	12,104	11,654	11,812
1979	11,105	10,562	12,576	12,196	12,789	12,230	11,821	11,309	10,541	10,810	9,997	9,996

SOURCE: American Iron and Steel Institute, special release.

TABLE XV-22. PIG IRON PRODUCTION IN MICHIGAN AND THE UNITED STATES, BY MONTH, 1975-1979

(000 tons)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1975	638	598	660	594	573	545	576	576	592	578	518	568
1976	597	601	619	605	705	662	626	613	568	588	622	588
1977	553	529	581	570	592	622	569	628	614	494	531	534
1978	540	512	628	527	627	626	671	649	638	685	600	620
1979	612	581	691	652	680	662	633	631	591	569	497	518
						United States						
1975	7,371	7,135	8,071	7,432	6,990	6,239	5,968	6,031	6,245	6,292	5,981	6,234
1976	6,636	6,754	7,519	7,600	8,116	7,874	7,999	7,751	6,995	6,969	6,384	6,272
1977	5,985	5,827	7,174	7,382	7,962	7,530	7,008	6,763	6,526	6,595	6,108	6,419
1978	6,390	5,971	6,894	7,189	7,936	7,754	7,636	7,515	7,391	7,809	7,533	7,668
1979	7,064	6,636	7,953	7,726	8,277	8,026	7,799	7,351	6,762	6,779	6,258	6,372

SOURCE: American Iron and Steel Institute, special release.

TABLE XV-23. MICHIGAN OIL REFINERIES: 1978

Company	Refinery location	Nominal capacity[a] bls. per day
Bay Refining, Division Dow Chemical Company	Bay City	17,000
Crystal Refining Company	Carson City	6,200
Lakeside Refining Company	Kalamazoo	5,600
Total Leonard, Inc. (Leonard Refineries, Inc.) Leonard Division	Alma	42,000
Marathon Oil Company	Detroit	65,000
Osceola Refining Company	West Branch	12,500
TOTAL REFINERY CAPACITY		148,300
Average daily amount of crude refined during 1978, all Michigan refineries		
Michigan crude		75,827
Crude produced elsewhere		55,108
TOTAL		130,935

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978 (Lansing: 1979), p. 54.

a. Individual refinery operating rates may be less or slightly more than nominal rates shown.

TABLE XV-24. PULPWOOD CONSUMPTION AND WOODPULP PRODUCTION AND CONSUMPTION IN MICHIGAN AND U. S. MILLS: 1963-1978

Year	Pulpwood consumption[a]				Woodpulp production[b]		Woodpulp consumption[b]	
	Softwood		Hardwood					
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1963	199,869	35,661,356	530,617	10,773,661	548,505	30,121,216	n.a.	30,219,885
1964	205,095	38,315,437	556,677	11,395,328	570,129	32,428,928	1,134,481	32,030,985
1965	232,696	39,676,054	628,869	12,294,203	605,596	33,993,069	1,203,186	34,006,285
1966	225,122	42,833,416	605,407	13,425,926	590,324	36,639,984	1,206,303	36,649,041
1967	207,807	42,219,242	595,806	13,553,275	575,937	36,660,048	1,174,397	37,049,675
1968	235,947	45,067,973	487,539	14,719,909	496,002	39,399,694	1,124,262	39,386,740
1969	162,558	48,904,661	618,505	16,112,001	588,945	43,416,138	1,324,904	44,009,761
1970	181,296	51,335,102	628,534	16,188,919	587,333	43,662,620	1,264,047	43,394,401
1971	157,163	50,932,446	598,105	16,568,196	572,620	43,932,681	1,204,573	44,182,674
1972	145,529	53,613,247	622,538	17,924,650	615,386	46,767,276	1,323,572	47,347,254
1973	110,019	54,768,368	622,893	18,513,673	593,157	47,936,719	1,398,627	48,697,592
1974	224,164	54,634,406	931,741	19,824,606	872,623	48,417,138	1,432,658	48,299,929
1975	204,555	48,932,368	648,046	16,488,703	648,895	43,247,697	1,080,832	42,391,995
1976	(D)	54,788,870	782,555	18,420,279	804,478	48,803,862	1,239,556	48,724,021
1977	(D)	55,509,963	834,234	18,460,862	862,401	49,032,269	1,300,144	48,477,357
1978	(D)	54,939,233	903,019	19,231,120	922,907	49,694,040	1,426,659	49,613,588

SOURCE: Bureau of the Census, Current Industrial Reports, Series M26A, Annual Summaries, 1963 through 1978 (Washington, D.C.: annually), Tables 4, 8, and 9 (1978).

a. Cords of 128 cubic feet, roughwood basis.

b. Short tons

(D): Withheld to avoid disclosing data for individual companies.

TABLE XV-25. PAPER AND PAPERBOARD PRODUCTION IN MICHIGAN AND THE UNITED STATES: 1965-1978

(Short tons)

	Paper and board total	Paper				
		Coated printing and converting	Book	Packaging and industrial	Tissue[a]	Total
1965						
Michigan	2,288,003	234,703	190,264	n.a.	56,852	885,525
United States	44,090,976	2,826,232	2,110,055	n.a.	239,157	19,187,042
1966						
Michigan	2,379,745	244,104	199,414	n.a.	62,233	942,772
United States	47,189,295	3,078,190	2,367,675	n.a.	265,088	20,631,158
1967						
Michigan	2,212,997	211,927	129,213	n.a.	59,831	821,823
United States	46,892,610	3,085,735	2,260,259	1,157,560	252,116	20,703,268
1968						
Michigan	2,228,689	238,689	185,978	n.a.	56,478	910,065
United States	50,703,188	3,132,330	2,537,068	4,844,827	259,569	23,091,110
1969						
Michigan	2,304,522	247,310	179,299	95,079	50,653	948,912
United States	54,057,691	3,345,257	2,667,469	5,084,808	223,557	23,504,598
1970						
Michigan	969,109	298,226	134,346	97,191	48,853	954,633
United States	5,329,393	3,277,159	2,603,116	5,031,568	215,155	23,409,077
1971						
Michigan	2,274,575	282,422	120,682	92,905	39,931	892,427
United States	55,091,530	3,250,694	2,758,214	5,014,903	218,894	23,837,840

TABLE XV-26. WINE SHIPMENTS BY WINERY, AND BEER SHIPMENTS BY BREWERY, IN MICHIGAN: 1977-1979

Producer	1977	1978	1979
Winery shipments (gallons)[a]			
Boskydel	2,254.0	2,451.1	3,139.9
Bronte	113,477.9	106,246.5	98,690.7
Chateau Grand Traverse	1,984.1	15,997.9	11,077.7
Chi	0	0	13,691.9
Fenn (Fennville)	11,198.2	17,271.7	14,119.4
Fenn (Rockford)	0	0	1,588.0
Fink	814.4	836.6	608.7
Frontenac	106,213.1	98,288.2	99,706.4
Lakeside	35,194.2	29,807.3	33,488.5
Leelanau (Omena)	6,179.8	12,978.7	13,160.2
Leelanau (T.C.)	0	0	11,221.8
L. Mawby	0	0	298.4
Milan	123,727.0	115,734.5	127,516.7
St. Julian	172,321.0	144,077.9	161,571.8
Tabor Hill	17,353.2	27,168.9	1,475.0
Vendramino	1,638.8	8,065.5	1,864.1
Warner Vineyards	258,439.1	272,185.4	300,474.5
TOTAL	850,795.9	859,286.4	893,693.7
Brewery shipments (barrels)[a]			
Carling			
Sold in Michigan	419,928.0	352,352.0	443,501.0
Shipped out	209,137.0	186,861.0	255,432.0
Bottled and barreled	629,065.0	539,213.0	698,933.0
Geyer			
Sold in Michigan	3,816.0	3,295.0	3,222.0
Shipped out	238.0	48.0	24.0
Bottled and barreled	4,054.0	3,343.0	3,246.0
Stroh			
Sold in Michigan	729,316.0	673,360.0	640,454.0
Shipped out	5,083,178.0	5,534,898.0	5,131,490.0
Bottled and barreled	5,812,494.0	6,008,258.0	5,771,944.0
Stroh-Goebel			
Sold in Michigan	133,061.0	148,269.0	101,191.0
Shipped out	168,867.0	172,072.0	142,115.0
Bottled and barreled	301,928.0	320,341.0	243,306.0
TOTAL			
Sold in Michigan	1,286,121.0	1,177,275.0	1,188,368.0
Shipped out	5,461,420.0	5,693,880.0	5,529,061.0
Bottled and barreled	6,747,541.0	6,871,155.0	6,717,429.0

SOURCE: Michigan Liquor Control Commission, special release.

a. Withdrawals from bond.

TABLE XV-27. PRODUCTION OF CHLORINE GAS, SODIUM HYDROXIDE, AND NEW SULFURIC ACID IN MICHIGAN AND THE UNITED STATES: 1960-1978

(In thousands of short tons)

Year	Chlorine gas		Sodium hydroxide		New sulfuric acid	
	Michigan	United States	Michigan	United States	Michigan	United States
1960	516,782	4,636,939	562,473	4,971,860	324,318	17,085,190
1961	495,257	4,600,791	528,795	4,913,692	307,979	17,058,042
1962	512,877	5,142,876	546,791	5,442,890	331,901	19,701,063
1963	526,042	5,464,080	570,857	5,814,403	355,824	20,037,537
1964	568,718	5,945,215	619,923	6,388,987	347,386	21,959,065
1965	577,070	6,517,079	623,346	6,742,043	323,326	23,812,638
1966	593,522	7,204,372	653,731	7,616,346	346,669	27,413,530
1967	589,407	7,679,868	686,893	8,397,879	305,609	27,735,504
1968	601,412	8,444,459	672,156	8,867,713	246,570	27,403,538
1969	627,441	9,413,885	671,836	9,916,567	203,487	28,233,063
1970	583,095	9,763,702	610,705	10,140,988	169,000	28,259,900
1971	502,484	9,352,437	522,037	9,666,521	166,500	28,144,800
1972	509,564	9,873,371	528,375	10,217,400	132,200	29,924,000
1973	532,760	10,402,341	583,571	10,733,800	100,900	33,423,200
1974	562,781	10,753,109	613,493	11,188,519	96,900	32,233,600
1975	444,566	9,103,597	484,294	9,582,997	82,000	31,417,700
1976	431,738	10,378,432	471,657	10,516,090	n.a.	32,279,700
1977	366,508	10,573,014	408,092	10,932,772	n.a.	34,155,900
1978	379,665	11,051,665	420,777	11,326,475	n.a.	38,419,400

SOURCE: Bureau of the Census, Current Industrial Reports, Series M28A, Annual Summaries, 1960 through 1978 (Washington, D.C.: annually), Table 3 (1978 chlorine gas and sodium hydroxide data), and Current Industrial Reports, Series MA28A, Annual Sulfuric Acid Supplement, 1960 through 1978 (Washington, D.C.: annually), Table 4 (1978).

n.a.: not available.

A thorough search of the Michigan Historical Commission Archives in Lansing yielded the names of corporations that engaged in motor vehicle assembly during the first decade of this century. They appear below in roughly the order in which they were incorporated.

Name of organization	First location	Years during which automobiles were produced[a]	Year first truck produced
Olds Motor Works	Detroit	01 - 72	01[b]
Pontiac Spring and Wagon	Pontiac	07 - 08	
Jackson Automobile	Jackson	02 - 18	03[b]
Burtt Manufacturing	Kalamazoo	04 - 05	
Marr Auto Car	Detroit	03 - 04	
Ford Motor	Detroit	03 - 72	04[c]
Huber Automobile	Detroit	n.a.	04[b]
Packard	Detroit	02 - 54	03[b]
Buick	Flint	03 - 72	03[b]
Welch	Flint	01 - 09	
Detroit Automobile Mfg.	Detroit	05 - 07	
Detroit Auto Vehicle	Detroit	04 - 07	06[c]
Reo Car	Lansing	04 - 36	10[b]
Pungs-Finch Auto & Gas Eng.	Detroit	04 - 10	
Ried Manufacturing	Detroit	03 - 05	
C.H. Blomstrom Mfg.	Detroit	03 - 06	
Eureka Mfg.	Detroit	n.a.	
Hammer Motor	Detroit	05 - 06	
Wayne Automobile	Detroit	04 - 08	
Rapid Motor Vehicle	Detroit	n.a.	02[b]
Reliance Motor Car	Detroit	03 - 07	06[b]
International Auto	Detroit	n.a.	
Matheson Motor Car	Detroit	n.a.	
Couple Gear Freight Wheel	Gr. Rapids	n.a.	05[b]
Motorcar	Detroit	06 - 08	06[c]
Bates	Lansing	03 - 05	
Dolson	Charlotte	04 - 07	
Cadillac	Detroit	02 - 72	04[c]
Aerocar	Detroit	05 - 07	
Nielson	Detroit	07	06[b]
Whiting Motor Car	Jackson	n.a.	
Steel Swallow Motor Car	Jackson	07 - 08	
Northern	Detroit	02 - 08	02[b]
Marvel Motor Car	Detroit	07	
De Luxe	Detroit	06 - 09	
Clarkmobile	Lansing	03 - 06	
Brush Runabout	Detroit	07 - 12	
Crescent	Detroit	07 - 08	
Seitz Automobile & Tsm.	Detroit	n.a.	07[b]
Carter Runabout	Detroit	n.a.	
Homer Auto Truck	Homer	n.a.	08[b]
Demotcar	Jackson	09 - 13	

Name of organization	First location	Years during which automobiles were produced[a]	Year first truck produced
C.V.I. Motor	Jackson	07 - 08	
Lichtenberg Truck	Detroit	n.a.	
Century Car	Detroit	n.a.	
Oakland Motor Car	Pontiac	07 - 32	
Regal Motor	Detroit	08 - 18	
Fee Electric	Detroit	n.a.	
Chalmers-Detroit	Detroit	08 - 12	07[b]
Everitt-Metzger-Flanders	Detroit	08 - 12	
Grabowsky Power Wagon	Detroit	n.a.	08[b]
Cartercar	Pontiac	08 - 15	06[b]
Herreshoff Motor	Detroit	09 - 13	11[b]
Dowagiac Motor Car	Dowagiac	n.a.	08[b]
Hupp Motor Car	Detroit	09 - 36	11[b]
Ranier Motor Car	Saginaw	05 - 11	
Hudson Motor Car	Detroit	09 - 57	29[b]
Marquette Motor	Saginaw	n.a.	
Regal Motor Car	Detroit	n.a.	
Imperial Automobile	Jackson	09 - 15	12[b]
Detroit-Dearborn M.C.	Detroit	09 - 10	
Krit Motor Car	Detroit	09 - 14	09[b]
R.B. Hawley	Jackson	07	
Lion Motor Car	Adrian	09 - 12	
Warren Motor Car	Detroit	09 - 13	09[b]
Metzger Motor Car	Detroit	09 - 12	11[b]
Ajax Motor Wagon	Detroit	n.a.	
Holland Automobile Mfg.	Holland	n.a.	
Anhut	Detroit	09 - 10	
Watt	Detroit	n.a.	
Abbott Motor Car	Detroit	09 - 16	
Owen Motor Car	Detroit	09 - 11	
Henry Motor Car	Muskegon	09 - 11	
Templeton Du Brie	Detroit	n.a.	
Van Dyke	Detroit	n.a.	
Muskegon	Muskegon	n.a.	07[b]
Detroit Electric	Detroit	07 - 23	
Paige-Detroit	Detroit	19 - 28	09[b]

[a] Philip Hillyer Smith, Wheels within Wheels (New York: Funk & Wagnalls, 1968), pp. 191-267.

[b] The Saturday Evening Post, "Roll Call of 1801 Makes of Trucks and Busses Sold in America During the Past 50 Years or More," (New York: The Curtis Publishing Company, 1954).

[c] Detroit Free Press, various issues, 1901-1910.

n.a.: not available or not applicable.

Other sources were consulted to complete the listing of organizations producing cars or trucks in Michigan between 1900 and 1910.

Name of organization	First location	Years during which automobiles were produced[a]	Year first truck produced
American Electromobile	Detroit	n.a.	06[b]
Walker Motor Car	Detroit	05 - 06	
Soules	Gr. Rapids	05 - 08	06[b]
Lindsley	Dowagiac	n.a.	08[c]
Kermath	Detroit	06 - 07	
Wm. H. Newbrough[d]	Lansing	n.a.	
E.F. Johnson[e]	Kalkaska	n.a.	
Sintz	Gr. Rapids	03 - 04	
Austin	Gr. Rapids	03 - 17	
Michigan	Kalamazoo	03 - 07	
Michigan Yacht & Power	Detroit	n.a.	04[b]
Detroit Auto Company	Detroit	n.a.	00[e]
Commercial Motor Vehicle	Detroit	n.a.	04[c]
Chelsea Mfg.	Chelsea	01 - 04	
Wolverine	Dundee	06	
Hammer-Sommer	Detroit	03 - 04	
Imperial	Detroit	03 - 05	

a Philip Hillyer Smith, Wheels within Wheels (New York: Funk & Wagnalls, 1968), pp. 191-267.

b Detroit Free Press, various issues, 1901-1910.

c Commercial Car Journal, November 1948, pp. 81-84, 260-64.

d J.P. Edmonds, Development of the Automobile and Gasoline Engine in Michigan (Lansing: Franklin De Kleine Company, 1942).

e Fleet Owner, May 1946, p. 150.

n.a.: not available or not applicable.

The May 1946 issue of Fleet Owner (p. 150) mentioned a Detroit Automobile Company that produced a 500-pound capacity delivery wagon. There is no evidence of this firm in the other materials consulted. Fleet Owner also mentions the Elmer F. Johnson Cycle Works in Kalkaska. The existence of this manufacturer is corroborated by Polk's Michigan Gazetteer for the year 1903, in which Johnson advertised as a maker of bicycles and automobiles.

Assuming the Detroit Automobile Co. delivery wagons were the first trucks built in Michigan, the second manufacturer was the Olds Motor Works in Detroit. In 1901, Polk's Michigan Gazetteer listed Olds as a

manufacturer of gas and gasoline engines, automobiles, and motor trucks. Max Grabowsky was probably the third to produce and sell trucks in Michigan. The fourth was the Jackson Automobile Company. Buick was probably the fifth truck manufacturer, followed closely by Huber and then Packard. The latter had completed its move from Warren, Ohio, by the end of 1904. Packard evidently built trucks in Warren before shifting its base to Detroit, but in terms of the strict chronology of Michigan, Huber was in truck production before Packard.

Ford did not appear in the Saturday Evening Post listing until 1917, and Cadillac was not listed at all by the Post. However, both companies advertised a delivery wagon in the 12 February 1905 issue of the Detroit Free Press and so are included on the list. That issue of the Free Press had a special section on the fourth annual Detroit Automobile Show, in those days an adjunct to the annual sportman's show in the Detroit armory. Ads for cars and trucks in newspapers were rare. Olds was probably the first to carry on an intensive advertising campaign, which he did in the pages of the Saturday Evening Post. Olds also advertised delivery wagons, both light and heavy duty. The first Free Press commentary that recognized the distinction between passenger cars and trucks seems to be the one that appeared in the special section in 1905.

> A specialty is being made of Oldsmobile delivery cars, a light car of 10 h.p. and a carrying capacity of forty-one cubic feet, and a heavy car of 16 h.p. and a carrying capacity of eighty-seven cubic feet. The latter, it is said, will do the work of two two-horse wagons and will carry 2,000 pounds, under all conditions, at an average speed of fifteen miles an hour. The other car turned out by the Olds Co. is the 10 passenger coach, a 16 h.p. machine for the hotel, stage coach, and general livery use.

The commentary on the Ford exhibit reads:

> Special attention is being paid to the delivery car, which has a standard "Model C" frame. Ford 2-cylinder opposed engine; mileage capacity, on one filling of gasoline, 180 miles; on one filling of oil, 100 miles; carrying capacity of body, 600 to 800 pounds, besides driver, nearly 2 cubic yards in volume (Part 4, p. 1).

Ford and Olds produced mainly automobiles, whereas Max Grabowsky specialized in truck production as early as 1902, although the first annual report for his Rapid Motor Vehicle Company in the archives is for 1904. Emil Huber founded the Huber Automobile Company to specialize in truck production in 1903, producing his first commercial vehicle in 1904. In 1906, according to the Free Press ad by the Huber Company, this organization was manufacturing gasoline engine trucks of two, four, and six tons, as well as passenger coaches that could accommodate 20, 30, or 40 people. By 1906, Reliance was advertising a two-ton truck. Soules's

delivery wagon also appeared in 1906, along with the Cartercar delivery vehicle (by Motorcar Company), and the Crown delivery car (by the Detroit Auto Vehicle Company). American Electromobile also advertised a truck for the first time.

In 1908, Seitz Automobile and Transmission Company, manufacturers of motor trucks and delivery wagons, advertised a new type of automatic transmission known as the Seitz Double Friction, which enabled the driver to "automatically change speed without releasing the clutch."

The Motor Vehicle Manufacturers Association, Inc., in Detroit prepares weekly, monthly, and annual statistics on vehicle production from U.S. plants. Their annual reports include a host of other data, among them production figures for Canadian plants. Their figures on world production are shown in Table XVI-1. Automotive News and Ward's Automotive Reports are Detroit-based trade publications that should be consulted by persons requiring details on the week-to-week operations of vehicle manufacturers. Automotive Industries (a monthly from Radnor, Pennsylvania) carries articles and news items on industry technology.

R.L. Polk & Company provides data on registrations as a subscription service. Tables XVI-12 and XVI-13 were developed from that source.

The companies themselves have cooperated with the Division of Research, Graduate School of Business Administration, Michigan State University, in providing employment figures for Michigan and the United States and production figures for plants located in Michigan. Their cooperation in this program is gratefully acknowledged. Tables XVI-2 and XVI-5 were tabulated from company data. General Motors also issues annual press releases for selected locations (Tables XVI-6 and XVI-7). No releases are issued for Detroit or Warren because of many people on temporary assignment there and on payrolls elsewhere, or vice versa.

The Recreational Vehicle Industry Association is the source of Table XVI-11; the Bureau of the Census of Table XVI-8.

In 1965, Canada and the United States agreed to allow manufacturers of motor vehicles (essentially General Motors, Ford, Chrysler, American Motors, and the large truck manufacturers) to ship components and completed vehicles across the border, duty free, subject to certain restrictions. There has been a burgeoning trade between the two countries as reflected in Tables XVI-9 and XVI-10. The very rapid increase in the volume of exports from Michigan is largely a result of Autopact (see Tables XXIV-1 and XXIV-2 in the chapter on international trade).

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TABLE XV-25. PAPER AND PAPERBOARD PRODUCTION IN MICHIGAN AND THE UNITED STATES: 1965-1978 (cont.)

(Short tons)

	Paper and board total	Paper				
		Coated printing and converting	Book	Packaging and industrial	Tissue[a]	Total
1972						
Michigan	2,413,557	320,067	151,458	90,134	43,898	998,450
United States	59,457,076	3,545,830	3,010,018	5,199,134	228,034	25,435,338
1973						
Michigan	2,589,839	378,655	208,788	106,522	42,062	1,134,500
United States	61,683,838	3,829,821	3,142,354	5,112,304	240,492	26,535,949
1974						
Michigan	2,473,582	376,933	193,765	96,162	36,338	1,133,045
United States	59,934,461	3,977,527	2,831,562	5,360,480	220,923	26,861,445
1975						
Michigan	1,854,576	202,872	(D)	90,263	34,009	828,542
United States	52,359,215	3,327,976	2,401,131	4,383,973	177,202	23,294,793
1976						
Michigan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United States	60,043,429	4,063,497	2,973,781	5,040,962	193,214	26,534,322
1977						
Michigan	2,440,955	425,266	166,528	82,177	34,715	1,840,844
United States	61,868,977	4,188,745	3,069,566	5,161,515	194,384	27,491,035
1978						
Michigan	2,541,946	428,007	365,953	(D)	30,602	1,261,415
United States	64,300,395	4,513,213	7,315,285	5,280,007	209,693	28,505,617

SOURCE: Bureau of the Census, Current Industrial Reports, Series M26A, Annual Summaries, 1965 through 1978 (Washington, D.C.: annually), Tables 10 and 11 (1978).

a. Except sanitary and thin.

(D): Withheld to avoid disclosing data for individual companies.

n.a.: not available.

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XVI-2	Production of Motor Vehicles in Michigan, by Plant, and in the United States: 1973-1979
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XVI-5	Quarterly Total Employment by Chrysler, Ford, and General Motors in Michigan and the United States: 1972-1979
XVI-6	General Motors Local Purchases, Payrolls, and Employment in GM's Northern Michigan Region: 1967-1979
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XVI-8	Value of Output from and New Investment in Factories Classified in the Motor Vehicles and Car Bodies, Motor Vehicle Parts and Accessories, and Automotive Stampings Industries in Michigan and the United States: 1972-1977
XVI-9	Factory Sales of Motor Vehicles from Canadian and U.S. Plants, by Canadian, U.S., and Other Destinations: 1962-1979
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XVI-14	Ranking of Michigan Counties According to Total New Car Registrations per 100,000 Population: 1979
XVI-15	Ranking of Michigan Counties According to Total New Truck Registrations per 100,000 Population: 1979

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1953-1978

Year	United States	Canada	Japan	France	Germany	Italy	United Kingdom	Russia	Spain
1953	7,349,123	486,049	49,778	497,348	490,046	174,320	834,275	354,175	660
1954	6,536,729	352,109	70,073	600,040	680,509	216,715	1,037,879	403,873	620
1955	9,204,049	452,114	68,932	725,061	908,702	268,766	1,237,068	445,268	3,972
1956	6,918,759	471,350	111,066	827,079	1,075,603	315,802	1,004,544	464,632	4,500
1957	7,220,431	413,577	181,977	927,956	1,202,206	351,815	1,149,095	495,408	30,436
1958	5,121,269	356,418	188,303	1,127,549	1,495,221	403,560	1,364,407	511,074	31,050
1959	6,723,588	367,939	262,814	1,283,159	1,718,544	500,784	1,560,427	494,994	56,800
1960	7,905,117	397,739	481,551	1,369,210	2,055,127	644,633	1,810,700	523,591	58,209
1961	6,652,938	386,923	813,870	1,244,223	2,146,797	759,140	1,464,134	555,330	75,000
1962	8,197,311	505,187	990,706	1,536,133	2,356,594	946,793	1,674,530	577,500	100,163
1963	9,108,776	631,356	1,283,531	1,736,977	2,667,896	1,180,536	2,011,720	587,012	131,988
1964	9,307,860	670,990	1,702,475	1,615,896	2,909,657	1,090,078	2,332,376	603,100	178,128
1965	11,137,830	846,609	1,875,614	1,641,696	2,976,477	1,175,548	2,177,261	616,000	228,935
1966	10,396,299	872,214	2,286,399	2,024,552	3,050,708	1,365,898	2,042,354	675,300	340,418
1967	9,023,736	919,508	3,146,486	2,009,672	2,482,319	1,542,669	1,937,119	728,800	361,637
1968	10,820,410	1,150,218	4,085,826	2,075,617	3,106,958	1,660,370	2,225,122	800,700	393,433
1969	10,205,911	1,326,478	4,674,923	2,459,072	3,604,565	1,595,951	2,182,793	844,300	454,571
1970	8,283,949	1,159,504	5,289,147	2,750,086	3,842,247	1,854,252	2,098,498	922,000	536,026
1971	10,671,654	1,346,765	5,810,774	3,010,294	3,982,722	1,817,019	2,198,146	1,142,700	532,358
1972	11,310,708	1,430,084	6,294,438	3,328,320	3,815,982	1,839,793	2,329,430	1,379,000	695,217
1973	12,681,513	1,574,820	7,082,757	3,396,179	3,949,065	1,957,994	2,163,941	1,602,000	822,020
1974	10,072,662	1,524,874	6,551,840	3,462,847	3,099,777	1,772,515	1,936,685	1,846,000	837,414
1975	8,986,605	1,424,006	6,941,591	2,861,305	3,186,208	1,458,629	1,648,399	1,964,000	814,164
1976	11,497,391	1,640,112	7,841,447	3,402,715	3,868,089	1,590,677	1,705,506	2,025,000	866,240
1977	12,702,782	1,775,445	8,514,522	3,507,881	4,104,216	1,583,917	1,714,240	2,080,000	1,129,700
1978	12,899,202	1,817,457	9,269,153	3,507,930	4,186,364	1,656,115	1,607,467	2,160,000	1,143,831

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1953-1978 (cont.)

Year	Poland	Belgium	Sweden	Yugo-slavia	East Germany	Czecho-slovakia	Nether-lands	Hungary	Austria	World
1953	--	1,786	29,427	--	--	19,298	--	--	3,038	10,498,265
1954	--	3,620	44,735	--	--	19,384	--	--	10,240	10,224,973
1955	17,000	1,625	50,299	--	36,438	24,183	--	--	18,080	13,742,690
1956	19,000	383	57,274	4,200	45,346	37,329	--	3,500	15,935	11,652,001
1957	21,000	320	71,654	7,200	51,078	48,359	--	4,000	13,910	12,528,380
1958	27,000	382	91,179	7,696	54,163	58,556	1,586	5,200	19,166	11,354,337
1959	34,500	343	112,394	8,658	67,341	66,662	6,812	4,900	20,187	13,870,486
1960	36,400	256	128,527	15,921	76,000	73,684	19,339	5,600	12,568	16,376,878
1961	35,990	800	131,755	21,254	84,200	77,053	18,592	6,400	13,484	15,209,493
1962	41,129	1,043	151,568	21,197	88,000	81,224	28,577	7,700	12,395	18,198,265
1963	48,388	1,200	167,850	28,898	94,000	70,781	22,362	6,000	10,078	20,711,023
1964	54,853	2,070	184,018	38,692	102,000	55,468	36,182	8,000	7,660	22,014,424
1965	59,800	166,594	205,717	45,452	118,056	90,713	36,047	7,131	5,044	24,542,083
1966	66,975	195,219	199,910	48,834	126,626	113,421	39,993	7,990	4,210	24,975,313
1967	68,359	183,087	214,560	55,641	134,101	133,174	56,749	8,250	3,729	24,167,203
1968	84,921	172,906	244,786	74,106	139,116	150,299	66,523	8,500	4,088	28,576,465
1969	101,800	302,549	271,440	94,983	147,680	158,582	71,659	9,000	5,417	39,029,284
1970	118,000	272,433	310,887	130,563	181,000	169,920	79,219	9,200	3,937	29,686,562
1971	145,700	295,764	317,295	132,368	158,000	176,862	91,312	9,500	6,878	33,681,561
1972	156,100	271,453	305,989	126,412	173,800	182,937	99,666	10,000	6,255	35,796,305
1973	190,400	298,957	378,042	143,826	175,000	197,805	107,452	10,500	6,278	39,159,751
1974	200,878	183,128	368,359	189,728	192,000	200,878	82,081	12,075	4,642	35,053,084
1975	258,300	222,176	366,753	205,567	200,000	211,073	72,098	12,100	7,699	33,265,240
1976	310,400	326,978	367,780	216,071	205,000	215,830	86,561	12,900	8,739	38,532,923
1977	374,000	336,382	286,901	257,762	209,000	198,571	87,853	13,313	8,177	41,118,611
1978	417,500	303,260	305,534	279,759	207,000	218,568	86,323	13,000	5,486	42,495,992

SOURCE: Motor Vehicle Manufacturers Association of the United States, World Motor Vehicle Data (Detroit: 1980), pp. 11-13.

TABLE XVI-2. PRODUCTION OF MOTOR VEHICLES IN MICHIGAN, BY PLANT, AND IN THE UNITED STATES: 1973-1979

	1973	1974	1975	1976	1977	1978	1979
Dearborn, Ford	255,012	292,633	165,854	159,503	141,768	232,326	344,135
Detroit, Cadillac	307,698	195,400	247,082	256,298	279,170	291,168	261,515
Detroit, Chevrolet[a]	--	12,085	13,289	31,155	31,547	38,059	27,260
Detroit, Chrysler, Jefferson Avenue	202,302	123,605	87,922	88,605	94,483	45,001	--
Detroit, Chrysler, Jefferson Avenue T[b]	--	--	--	--	--	22,856	64,330
Detroit, Chrysler, Lynch Road	251,447	191,681	138,240	178,847	184,488	133,470	109,007
Flint, Buick	350,033	208,141	305,406	391,732	393,045	382,771	372,676
Flint, Chevrolet	362,850	302,068	306,459	426,164	394,952	432,238	346,447
Hamtramck, Chrysler	492,658	424,509	258,146	471,815	338,226	253,681	153,186
Kalamazoo, Checker	6,297	5,183	3,181	4,792	4,777	4,225	4,766
Lansing, Diamond Reo[c]	5,229	9,136	543	--	--	--	--
Lansing, Duplex[c]	570	307	225	--	--	--	--
Lansing, Oldsmobile	454,684	271,400	322,412	399,409	380,958	382,514	492,834
Pontiac, Pontiac	309,744	171,925	171,264	288,667	308,984	306,756	285,349
Pontiac, GMC	166,950	159,991	105,437	96,543	135,220	256,749	244,829
Warren, Chrysler	282,038	248,343	202,525	304,730	329,215	327,422	149,308
Wayne, Ford	140,909	188,201	236,247	279,098	278,329	271,662	160,123
Wayne, Ford truck	200,369	165,253	128,830	171,292	186,012	210,676	163,607
Wixom, Ford	183,927	116,404	126,650	149,379	190,572	173,964	140,096
Ypsilanti, GMAD	313,277	214,167	189,010	247,061	257,550	230,022	258,232
TOTAL, car, Michigan	3,267,988	2,403,249	2,251,414	2,914,242	2,852,350	2,707,560	2,581,919
TOTAL, truck, Michigan	1,019,721	897,183	757,308	1,029,884	1,076,946	1,288,000	995,781
TOTAL, car, U.S.	9,667,152	7,324,504	6,716,951	8,497,893	9,213,654	9,176,635	8,433,662
TOTAL, truck, U.S.	3,014,361	2,746,538	2,269,562	2,999,703	3,489,128	3,722,567	3,046,331

SOURCE: The various companies.

a. Chevrolet Division began assembling trucks here in 1974.

b. Converted from car to truck production for the 1978 model year.

c. Production ceased in 1975.

TABLE XVI-3. WHERE DOMESTIC PASSENGER CARS WERE BUILT: 1980 MODELS

Place	Models
United States	
	American Motors
Kenosha, Wisconsin	AMX, Concord, Pacer, Spirit
	Chrysler Corporation
Belvidere, Illinois	Omni, Horizon
Hamtramck, Michigan	Volare, Aspen
Detroit, Michigan	Newport, New Yorker, St. Regis
Newark, Delaware	Volare, Aspen, Diplomat, LeBaron
St. Louis, Missouri	LeBaron, Diplomat, Caravelle
	Ford Motor Company
Atlanta, Georgia	Ford
Chicago, Illinois	Thunderbird
Dearborn, Michigan	Mustang, Capri
Kansas City, Missouri	Fairmont, Zephyr
Lorain, Ohio	Cougar, LTD II, XR7, Club Wagon
Los Angeles, California	Ford, Thunderbird
Louisville, Kentucky	Ford
Mahwah, New Jersey	Granada, Monarch, Fairmont, Zephyr
Metuchen, New Jersey	Pinto, Bobcat
St. Louis, Missour	Mercury
San Jose, California	Mustang, Capri
Wayne, Michigan	Granada, Monarch, Versailles
Wixom, Michigan	Lincoln, Mark V
	General Motors
Arlington, Texas	Malibu, Monte Carlo, Cutlass
Baltimore, Maryland	Malibu, Monte Carlo, LeMans
Detroit, Michigan	Cadilac, Seville
Doraville, Georgia	Malibu, Monte Carlo, Cutlass
Fairfax, Kansas	Pontiac, Oldsmobile, Buick
Flint, Michigan	LeSabre, Electra, Century, Rega
Framingham, Mass.	Century, Cutlass
Fremont, California	Malibu, Monte Carlo, Century
Janesville, Wisconsin	Chevrolet
Lakewood, Georgia	Grand Prix
Lansing, Michigan	Oldsmobile, Cutlass
Leeds, Missouri	Malibu, Monte Carlo
Linden, New Jersey	Riviera, Toronado, Eldorado
Lordstown, Ohio	Sunbird, Monza, Skyhawk, Starfire
Norwood, Ohio	Camaro, Firebird

TABLE XVI-3. WHERE DOMESTIC PASSENGER CARS WERE BUILT: 1980 MODELS (cont.)

Place	Models
	General Motors (cont.)
Oklahoma City, Oklahoma	Citation, Phoenix
Pontiac, Michigan	Pontiac, LeMans, Grand Prix
St. Louis, Missouri	Chevrolet, Corvette
South Gate, California	Chevrolet, Cadillac deVille
Tarrytown, New York	Nova, Skylark, Phoenix
Van Nuys, California	Camaro, Firebird
Willow Run, Michigan	Nova, Omega, Phoenix, Skylark
Wilmington, Delaware	Chevette, Acadian
	Volkswagen of America
Westmoreland, Pennsylvania	Rabbit
	Checker Motors
Kalamazoo, Michigan	Checker
Canada	
	Chrysler Corporation
Windsor, Ontario	Cordoba, Magnum
	Ford Motor Company
Oakville, Ontario	Ford, Club Wagon
St. Thomas, Ontario	Fairmont, Zephyr
	General Motors
Oshawa, Ontario	Chevrolet, Monte Carlo, Malibu, Pontiac, LeMans
St. Therese, Quebec	Cutlass, Grand Prix
	Volvo
Halifax, Nova Scotia	Volvo

SOURCE: Automotive News, 1980 Market Data Book Issue, 30 April 1980, p. 26.

NOTE: General Motors Assembly Division controls all GM plants except for the four home plants at Flint, Detroit, Pontiac, and Lansing for Buick, Cadillac, Pontiac, and Oldsmobile.

TABLE XVI-4. WHERE DOMESTIC TRUCKS WERE BUILT: 1980 MODELS

Place	Models
United States	
	General Motors
Baltimore, Maryland	light Chevrolet and GMC trucks
Detroit, Michigan	light Chevrolet and GMC trucks
Flint, Michigan	light Chevrolet and GMC trucks
Fremont, California	light Chevrolet and GMC trucks
Janesville, Wisconsin	light Chevrolet and GMC trucks
Lakewood, Georgia	light Chevrolet and GMC trucks
Lordstown, Ohio	light Chevrolet and GMC trucks
Pontiac, Michigan	light, medium and heavy Chevrolet and GMC trucks, buses
St. Louis, Missouri	light Chevrolet and GMC trucks
	Chrysler Corporation
Warren, Michigan	light Dodge trucks
St. Louis, Missouri	light Dodge trucks
Detroit, Michigan	light Dodge trucks
	Ford Motor Company
Kansas City, Missouri	light trucks
Louisville, Kentucky	light, medium, heavy, and extra heavy trucks
Lorain, Ohio	light trucks
Wayne, Michigan	light trucks
Norfolk, Virginia	light trucks
Avon Lake, Ohio	light trucks
San Jose, California	light trucks
Twin cities, Minnesota	light trucks
	International
Fort Wayne, Indiana	light, medium heavy and heavy trucks
Springfield, Ohio	medium and medium heavy trucks
Wagner, Oklahoma	heavy trucks[a]
	Mack
Allentown, Pennsylvania	heavy Mack trucks
Hayward, California	heavy Mack trucks
Macungie, Pennsylvania	heavy Mack trucks
	White
Exton, Pennsylvania	heavy Autocar trucks
New River Valley, Virginia	heavy Autocar K and White trucks
Ogden, Utah	heavy Western Star (cab-over only), Autocar K and White trucks

TABLE XVI-4. WHERE DOMESTIC TRUCKS WERE BUILT: 1980 MODELS (cont.)

Place	Models
	Jeep
Toledo, Ohio	light trucks
	AM General Corporation
South Bend, Indiana	military and postal vehicles
	Volkswagon of America
Westmoreland, Pennsylvania	light trucks[b]
Canada	
	American Motors
Brampton, Ontario	light trucks
	Chrysler Corporation
Windsor, Ontario	light trucks
	Ford Motor Company
Oakville, Ontario	light and medium trucks
	General Motors
Oshawa, Ontario	light trucks
Scarborough, Ontario	light trucks
	International
Chatham, Ontario	medium trucks
Vancouver, British Columbia	extra heavy trucks
	Mack
Oakville, Ontario	heavy trucks
	White
Kelowna, British Columbia	heavy Western Star trucks

SOURCE: Automotive News, 1980 Market Data Book Issue, 30 April 1980, p. 26.

a. Beginning spring 1980.

b. Beginning 20 October 1979.

TABLE XVI-5. QUARTERLY TOTAL EMPLOYMENT BY CHRYSLER, FORD, AND GENERAL MOTORS IN MICHIGAN AND THE UNITED STATES: 1972-1979

(Average of three monthly figures)

Year	Chrysler		Ford[a]		General Motors	
	Michigan	United States	Michigan	United States	Michigan	United States
1972: 1	n.a.	130,391	111,596	208,733	238,836	558,895
2	n.a.	137,821	112,613	209,619	249,502	557,301
3	n.a.	137,615	110,403	203,499	227,203	509,572
4	n.a.	145,858	118,045	219,726	259,644	582,224
1973: 1	91,125	148,485	119,150	221,559	262,512	589,229
2	93,984	154,676	122,002	226,463	262,963	590,622
3	88,316	146,280	121,049	221,661	252,975	572,229
4	97,411	161,253	127,154	230,786	265,636	605,514
1974: 1	88,080	147,376	119,788	215,671	222,908	513,221
2	84,610	139,538	117,732	214,706	221,884	510,354
3	84,393	139,005	117,857	213,975	219,809	498,105
4	69,423	117,560	117,354	213,870	243,364	549,470
1975: 1	43,632	76,687	95,721	168,634	200,406	448,721
2	59,559	99,410	104,935	190,290	210,586	474,983
3	69,545	114,654	108,117	195,703	212,095	471,185
4	73,691	122,455	108,795	195,459	233,000	525,000
1976: 1	74,086	122,281	109,767	199,711	224,000	505,000
2	79,120	127,762	111,225	202,085	242,000	544,000
3	81,087	129,539	108,576	196,799	233,000	523,000
4	82,694	135,322	114,220	207,716	256,000	574,000
1977: 1	78,225	127,420	112,218	216,631	245,000	545,000
2	83,490	135,089	117,818	223,031	265,000	586,000
3	82,701	135,039	118,775	222,119	252,000	564,000
4	84,047	137,286	124,098	233,911	280,000	624,000
1978: 1	78,744	131,066	124,187	234,635	264,000	588,000
2	82,799	136,158	127,148	239,517	278,000	619,000
3	75,187	125,989	126,300	233,314	267,000	594,000
4	81,664	135,997	135,377	253,536	289,000	643,000
1979: 1	75,316	125,899	132,298	245,253	295,000	644,000
2	70,238	118,532	129,526	240,054	296,000	650,000
3	58,182	99,754	117,630	211,763	291,000	582,000
4	55,456	98,228	111,790	196,038	288,000	602,000

SOURCE: Data made available by the automobile companies.
a. Excludes Aeronutronic Ford and finance and insurance subsidiaries.
n.a.: not available.

TABLE XVI-6. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN GM'S NORTHERN MICHIGAN REGION: 1967-1979

(In thousands of dollars)

Plant City	Year	Employees[a]	Earnings[b]	Number of local suppliers	Local purchases
Bay City	1967	2,694	$ 22,209	200	$ 4,500
	1968	3,007	29,292	360	7,011
	1969	3,440	31,797	391	5,759
	1970	2,750	27,314	381	5,794
	1971	3,651	41,041	433	6,240
	1972	3,596	41,565	462	6,300
	1973	3,824	48,313	475	7,400
	1974	3,423	46,538	475	9,830
	1975	3,006	46,663	387	5,720
	1976	3,586	65,950	477	10,740
	1977	3,805	79,979	471	13,254
	1978	3,868	88,330	475	14,900
	1979	3,598	79,917	440	16,000
Flint	1967	72,649	663,377	7,600	388,000
	1968	74,865	767,758	7,534	324,240
	1969	76,741	790,489	7,800	344,392
	1970	60,526	660,303	7,083	252,100
	1971	69,521	845,338	7,000	258,000
	1972	68,889	925,325	7,000	310,000
	1973	73,946	1,083,576	7,100	429,000
	1974	63,180	962,027	6,103	412,000
	1975	59,572	1,014,131	6,347	479,600
	1976	67,347	1,422,169	6,846	598,729
	1977	73,562	1,715,752	7,468	696,111
	1978	76,933	1,865,837	7,360	748,500
	1979	75,981	1,926,009	7,548	859,600
Grand Rapids	1967	6,666	58,161	1,000	8,809
	1968	6,828	67,847	998	10,361
	1969	6,948	69,860	1,100	11,000
	1970	5,783	63,844	1,000	12,984
	1971	6,916	80,266	900	8,390
	1972	6,908	87,857	900	8,600
	1973	7,417	104,622	950	10,400
	1974	6,636	100,954	950	14,800
	1975	6,030	97,383	914	19,812
	1976	6,862	133,658	989	13,941
	1977	7,353	156,518	1,004	13,880
	1978	7,652	173,752	1,018	28,800
	1979	8,169	203,694	1,180	29,900

TABLE XVI-6. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN GM'S NORTHERN MICHIGAN REGION: 1967-1979 (cont.)

(In thousands of dollars)

Plant City	Year	Employees[a]	Earnings[b]	Number of local suppliers	Local purchases
Kalamazoo	1967	2,055	$ 21,249	405	$ 6,538
	1968	2,484	29,138	415	8,219
	1969	2,718	30,975	400	9,725
	1970	2,539	32,715	400	1,300
	1971	2,833	34,782	340	1,400
	1972	2,768	37,480	300	1,600
	1973	3,099	46,037	325	2,300
	1974	2,716	42,345	382	2,400
	1975	2,682	48,998	361	2,120
	1976	3,244	69,902	341	3,662
	1977	3,668	83,858	375	6,471
	1978	3,725	86,952	300	3,598
	1979	3,831	97,967	340	4,619
Lansing	1967	19,357	171,977	2,250	114,000
	1968	20,599	212,128	2,732	131,075
	1969	21,237	221,200	3,000	139,719
	1970	17,194	181,503	2,500	122,600
	1971	21,777	273,967	1,000	111,600
	1972	21,604	290,739	1,000	112,800
	1973	21,808	332,922	1,100	130,800
	1974	16,841	250,076	1,335	82,600
	1975	16,928	287,412	2,588	93,700
	1976	18,796	399,658	1,319	111,677
	1977	20,558	471,868	1,487	147,711
	1978	22,225	525,835	1,646	201,300
	1979	23,432	583,343	1,796	239,641
Saginaw	1967	18,642	171,154	1,900	62,569
	1968	19,456	204,854	1,954	68,958
	1969	20,907	218,820	1,900	68,958
	1970	18,384	200,965	2,032	71,000
	1971	23,284	293,209	2,000	119,000
	1972	23,384	318,677	2,000	112,000
	1973	24,565	379,148	2,000	140,700
	1974	22,266	336,584	1,800	148,400
	1975	19,969	343,241	1,245	91,700
	1976	22,661	472,011	1,833	112,748
	1977	24,307	565,624	2,013	146,289
	1978	25,765	631,277	2,147	168,289
	1979	26,127	642,468	2,276	183,069

TABLE XVI-6. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN GM'S NORTHERN MICHIGAN REGION: 1967-1979 (cont.)

(In thousands of dollars)

Plant City	Year	Employees[a]	Earnings[b]	Number of local suppliers	Local purchases
TOTALS	1967	122,063	$1,108,127	13,355	$ 584,416
	1968	127,239	1,311,017	13,993	549,864
	1969	131,991	1,364,141	14,591	580,053
	1970	107,176	1,166,645	13,396	465,668
	1971	127,982	1,568,604	11,673	532,630
	1972	126,549	1,701,643	11,662	561,300
	1973	134,659	1,994,618	11,950	720,600
	1974	115,062	1,738,525	11,045	670,030
	1975	108,187	1,837,828	11,842	692,652
	1976	122,496	2,563,347	11,805	851,497
	1977	133,253	3,073,600	12,818	1,023,716
	1978	140,168	3,371,982	12,946	1,165,387
	1979	141,138	3,533,398	13,580	1,332,830

SOURCE: General Motors Corporation, special release.

a. Geographical payroll reports files, annual averages of monthly wage and salary jobs at GM facilities in these areas.

b. Geographical payroll reports files, does not include health insurance, pension contributions, supplemental unemployment benefits, unemployment insurance, and workmen's compensation.

TABLE XVI-7. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN GM'S SOUTHERN MICHIGAN REGION: 1970-1979

(Thousands of dollars)

Year	Employees[a]	Earnings[b]	Purchases
Adrian-Tecumseh			
1970	719	6,759	126
1971	832	8,800	126
1972	858	11,441	125
1973	981	13,822	135
1974	766	10,248	153
1975	325	13,707	152
1976	1,083	21,000	318
1977	1,255	26,300	1,400
1978	1,427	26,300	9,500
1979	1,492	33,700	12,660
Livonia			
1970	5,692	55,928	53,500
1971	7,094	80,726	87,417
1972	7,461	92,706	91,000
1973	8,362	116,900	85,400
1974	6,441	92,600	123,200
1975	6,444	99,900	96,000
1976	8,188	149,200	149,100
1977	8,713	171,400	164,600
1978	8,808	180,800	20,500
1979	8,780	187,000	232,000
Milford[c]			
1970	1,150	13,000	829
1971	1,200	15,700	1,060
1972	1,415	20,000	1,150
1973	1,644	24,200	1,280
1974	1,727	26,300	2,150
1975	1,700[d]	25,435	2,450
1976	2,175	41,900	5,500
1977	2,386	48,200	4,000
1978	2,256	53,400	5,700
1979	2,788	74,000	10,800
Pontiac			
1970	29,799	309,283	98,000
1971	33,904	414,754	98,399
1972	35,764	463,803	89,700
1973	38,343	540,902	106,740
1974	29,831	438,809	92,155
1975	25,238	410,200	84,200
1976	31,367	625,700	117,300
1977	33,220	733,900	161,700
1978	37,212	849,300	150,200
1979	39,045	926,000	179,300

TABLE XVI-7. GENERAL MOTORS LOCAL PURCHASES, PAYROLLS, AND EMPLOYMENT IN GM'S SOUTHERN MICHIGAN REGION: 1970-1979 (cont.)

(Thousands of dollars)

Year	Employees[a]	Earnings[b]	Purchases
Ypsilanti			
1970	8,909	93,489	47,700
1971	10,996	133,665	64,905
1972	11,748	153,337	84,200
1973	12,333	178,337	97,500
1974	9,876	148,251	93,500
1975	9,710	154,525	91,900
1976	12,352	238,700	97,700
1977	14,691	300,900	139,300
1978	15,303	357,300	187,600
1979	19,347	9456,800	507,600

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SOURCE: General Motors Corporation, special release.

NOTE: Separate figures are not available for the cities of Detroit and Warren because of the large number of people on temporary assignment, on the payroll of divisions scattered around the world.
a. Annual averages of monthly wage and salary jobs at GM facilities.
b. Does not include health insurance, pension contributions, supplemental unemployment benefits, unemployment insurance, and other fringe benefits.
c. For 1970-1975, figures pertain to permanent employees of the proving grounds. For 1976-1979, figures are estimates that include permanent employees and personnel from other divisions on temporary assignment.
d. Estimated.

TABLE XVI-8. VALUE OF OUTPUT FROM AND NEW INVESTMENT IN FACTORIES CLASSIFIED IN THE MOTOR VEHICLES AND CAR BODIES, MOTOR VEHICLE PARTS AND ACCESSORIES, AND AUTOMOTIVE STAMPINGS INDUSTRIES IN MICHIGAN AND THE UNITED STATES: 1972-1977

Year	Value added in manufacturing			New capital expenditures		
	Michigan (0000)	United States (0000)	Michigan as a percentage of U.S.	Michigan (000)	United States (000)	Michigan as a percentage of U.S.
			Motor vehicles and car bodies			
1972	4,475.4	11,782.5	38.0	651.8	917.2	71.1
1973	5,442.4	13,666.0	39.8	537.0	805.9	66.6
1974	3,971.2	10,849.4	36.6	673.6	1,042.9	64.6
1975	4,191.9	10,441.0	40.1	432.4	655.7	65.9
1976	6,457.5	15,843.7	40.8	826.7	1,046.9	79.0
1977	7,205.7	18,671.9	38.6	(D)	1,807.7	(D)
			Motor vehicle parts and accessories			
1972	3,802.2	9,164.7	41.5	498.9	1,113.1	44.8
1973	4,394.7	10,641.3	41.3	432.6	1,023.6	41.9
1974	3,710.8	10,250.0	36.2	748.6	1,290.1	58.0
1975	3,817.1	9,986.3	38.2	561.6	1,114.4	50.4
1976	5,267.5	13,709.4	38.4	379.4	962.1	39.4
1977	6,098.7	16,265.3	37.5	746.7	1,856.0	40.2
			Automotive stampings			
1972	1,157.1	2,663.8	43.4	(D)	117.5	(D)
1973	1,371.8	3,141.3	43.7	(D)	171.5	(D)
1974	1,364.6	3,011.6	45.3	(D)	255.5	(D)
1975	1,229.4	2,872.4	42.8	(D)	215.5	(D)
1976	1,743.8	3,934.8	44.3	(D)	176.1	(D)
1977	1,935.8	4,642.0	41.8	103.4	285.3	36.3

SOURCE: Bureau of the Census, Census of Manufactures, 1972 Area Series, Michigan, MC72(3)-23 (Washington, D.C.: 1975), Table 5; Bureau of the Census, Annual Survey of Manufactures: 1973, General Statistics for Industry Groups and Industries, M73M73(AS)-1 (Washington, D.C.: 1975), Table 1, and similar documents for 1974, 1975, and 1976; Bureau of the Census, Annual Survey of Manufactures: 1973, Statistics for States, Standard Metropolitan Statistical Areas, Large Industrial Counties, and Selected Cities, M73(AS)-6 (Washington, D.C.: 1976) Table 3, and similar documents for 1974, 1975, and 1976; Bureau of the Census, 1977 Census of Manufactures, Geographic Area Series, Michigan (Washington, D.C.: 1979), Preliminary Report MC77-A-23 (P), Table 3; and Bureau of the Census, 1977 Census of Manufactures, Summary Series, Selected Statistics for Industry Groups and Industries: 1977 and 1972 (Washington, D.C.: 1979), MC77-S-1(P), Table 2.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XVI-9. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1964-1979

Year	Plants in United States				Plants in Canada				U.S.-Canada total
	Exports to Canada	Other exports	Domestic	Total	Exports to U.S.	Other exports	Domestic	Total	
				Passenger cars					
1964	14,858	182,859	7,554,105	7,751,822	--	38,306[a]	518,284	556,590	8,308,412
1965	46,540	159,123	9,120,737	9,326,400	33,862	39,771	630,604	704,237	10,030,637
1966	121,821	139,625	8,336,880	8,598,326	161,068	36,796	494,027	691,891	9,290,217
1967	246,140	120,460	7,070,164	7,436,764	326,139	34,829	354,822	715,790	8,152,554
1968	288,610	126,399	8,407,149	8,822,158	480,254	36,830	359,195	876,279	9,698,437
1969	286,392	130,847	7,806,476	8,223,715	676,765	35,948	314,890	1,027,603	9,251,318
1970	245,746	113,753	6,187,318	6,546,817	681,872	30,427	206,933	919,232	7,466,049
1971	352,130	110,748	8,121,714	8,584,592	779,769	37,654	258,034	1,075,457	9,660,049
1972	382,463	89,005	8,352,470	8,823,928	836,630	37,293	262,971	1,136,894	9,960,832
1973	476,099	102,699	9,078,849	9,657,647	862,407	41,126	322,506	1,226,039	10,883,686
1974	500,463	109,499	6,721,294	7,331,256	802,370	52,495	316,978	1,171,843	8,503,099
1975	549,353	90,199	6,073,300	6,712,852	713,407	58,149	271,689	1,043,245	7,756,097
1976	562,635	97,167	7,837,801	8,497,603	808,788	75,331	250,525	1,134,644	9,632,247
1977	586,073	102,308	8,512,468	9,200,849	831,994	87,148	236,559	1,155,701	10,356,550
1978	541,552	130,075	8,493,563	9,165,190	764,835	107,037	155,701	1,127,573	10,292,763
1979	582,097	158,991	7,678,138	8,419,226	582,386	92,728	298,060	973,174	9,392,400
				Trucks and buses					
1964	2,847	160,179	1,377,427	1,540,453	--	7,194[a]	102,729	109,923	1,650,376
1965	9,550	126,311	1,615,944	1,751,805	7,001	15,525	119,138	141,664	1,893,469
1966	19,525	105,033	1,606,526	1,731,084	58,111	23,485	113,718	195,314	1,926,398
1967	35,199	89,825	1,414,438	1,539,462	98,029	26,999	100,932	225,960	1,765,422
1968	47,559	83,428	1,765,091	1,896,078	145,258	31,316	100,160	276,734	2,172,812
1969	60,251	81,745	1,781,177	1,923,179	197,551	30,318	87,300	315,169	2,238,348
1970	53,646	73,125	1,565,669	1,692,440	157,532	32,429	62,118	252,079	1,944,519

TABLE XVI-9. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1964-1979 (cont.)

Year	Plants in United States				Plants in Canada				U.S.-Canada total
	Exports to Canada	Other exports	Domestic	Total	Exports to U.S.	Other exports	Domestic	Total	
				Trucks and buses (cont.)					
1971	69,026	69,812	1,914,308	2,053,146	166,307	29,924	83,107	279,338	2,332,487
1972	94,453	57,983	2,294,371	2,446,807	204,405	23,223	90,595	318,223	2,765,030
1973	120,463	72,412	1,786,813	2,979,688	215,260	27,293	112,974	355,527	3,335,215
1974	167,514	90,173	2,469,626	2,727,313	188,895	39,556	148,048	376,499	3,103,812
1975	133,701	135,701	2,002,758	2,272,160	181,165	47,742	161,158	390,065	2,662,225
1976	128,524	116,855	2,733,670	2,979,049	265,623	44,065	188,226	497,914	3,476,963
1977	135,078	127,423	3,179,020	3,441,521	347,592	47,278	210,614	605,484	4,047,005
1978	138,970	151,621	3,415,648	3,706,239	396,935	51,195	214,169	662,299	4,368,538
1979	158,394	137,231	2,741,081	3,036,706	348,231	43,861	240,983	633,075	3,669,781
				Total motor vehicles					
1964	17,705	343,038	8,931,532	9,292,275	--	45,500[a]	621,013	666,513	9,958,788
1965	56,090	285,434	10,736,681	11,078,205	40,863	55,296	749,742	845,901	11,924,106
1966	141,346	244,658	9,943,406	10,329,410	219,179	60,281	607,745	887,205	11,216,615
1967	281,339	210,285	8,484,602	8,976,226	424,168	61,828	455,754	941,750	9,917,976
1968	336,169	209,827	10,172,240	10,718,236	625,512	68,146	459,355	1,153,013	11,871,249
1969	346,649	212,592	9,587,653	10,146,894	874,316	66,266	402,190	1,342,772	11,489,666
1970	299,392	186,878	7,752,987	8,239,257	839,404	62,856	269,051	1,171,311	9,419,568
1971	421,156	180,560	10,036,022	10,637,738	946,076	67,578	341,141	1,354,795	11,992,533
1972	476,916	146,988	10,646,841	11,270,745	1,041,035	60,516	353,566	1,455,117	12,725,862
1973	596,562	175,111	11,865,662	12,637,335	1,077,667	68,419	435,480	1,581,566	14,218,901
1974	667,977	199,672	9,190,920	10,058,569	991,265	92,051	465,026	1,548,342	11,606,911
1975	683,054	225,900	8,076,058	8,985,012	894,572	105,891	432,847	1,433,310	10,418,322
1976	691,159	214,022	10,571,471	11,476,652	1,074,411	119,396	438,751	1,632,558	13,109,210
1977	721,151	229,731	11,691,488	12,642,370	1,179,586	134,426	447,173	1,761,185	14,403,555
1978	680,522	281,696	11,909,211	12,871,429	1,161,770	158,232	469,870	1,789,872	14,661,301
1979	740,491	296,222	10,419,219	11,455,932	930,617	136,589	539,043	1,606,249	13,062,181

SOURCE: Motor Vehicle Manufacturers Association of the United States, Inc., special release.
a. Includes exports to the United States.

TABLE XVI-10. U.S.-CANADA TRADE IN AUTOMOTIVE PRODUCTS, U. S. IMPORTS FROM CANADA AND CANADIAN IMPORTS FROM THE UNITED STATES: 1973-1979

(In millions of U.S. dollars)

	1973	1974	1975	1976	1977	1978	1979
U.S. exports[a]							
Cars	1,439	1,657	2,142	2,354	2,655	2,613	3,147
Trucks	643	916	922	985	1,057	1,158	1,654
Parts	3,552	3,980	4,409	5,550	6,434	7,080	7,344
Sub total	5,634	6,554	7,472	8,889	10,146	10,851	12,145
Tires and tubes	92	223	170	116	145	113	128
Total exports	5,726	6,777	7,643	9,005	10,290	10,964	12,273
U.S. imports							
Cars	2,272	2,595	2,809	3,477	3,795	4,129	3,707
Trucks	789	887	917	1,363	1,841	2,036	2,018
Parts	2,172	1,997	2,008	2,983	3,496	4,160	3,832
Sub total	5,233	5,479	5,734	7,823	9,132	10,326	9,556
Tires and tubes	68	65	67	166	135	167	200
Total imports	5,301	5,544	5,801	7,989	9,267	10,493	9,756
Net balance	+ 426	+1,233	+1,842	+1,016	+1,023	+ 471	2,518

SOURCE: U.S. Department of Commerce, special release.

NOTE: Data exclude U.S.-Canadian trade in materials for use in the manufacture of automotive parts. Data are adjusted to reflect transaction values for vehicles. $1.00 Canadian = $0.997 U.S., 1973; $1.02246, U.S., 1974; $.984001, U.S. 1975; $1.0141, U.S. 1976 $0.94095, U.S. 1977; and $0.91132, U.S. 1978.

a. Canadian import data. Parts exports (Canadian imports) adjusted to exclude tooling charges to millions of U.S. dollars as follows: 1973, $68.00; 1974, $188.00; 1975, $110.00; 1976, $105.00; and 1977, $72.00.

TABLE XVI-11. PRODUCTION OF RECREATIONAL VEHICLES IN MICHIGAN AND THE UNITED STATES, BY TYPE OF VEHICLE: 1973-1976

Vehicle type	Michigan				United States			
	1973	1974	1975	1976	1973	1974	1975	1976
Travel trailer[a]	10,147	4,664	3,047	3,437	216,078	123,283	150,600	190,100
Truck-mounted camper	2,941	1,712	567	1,413	84,017	40,511	44,300	42,000
Truck cap	5,015	2,550	9,184	n.a.	238,098	232,375	212,500	n.a.
Camping trailer	19,294	9,837	11,091	15,378	91,964	40,511	48,100	53,300
Motor home								
Type A[b]	6,303	3,035	3,805	7,154	62,399	27,782	30,300	45,200
Type B[c]	1,690	1,642	631	1,198	18,040	15,668	26,400	136,100
Type C[d]	1,275	368	957	4,269	32,277	19,083	39,900	74,800

SOURCE: 1973 figures from RV Dealer magazine, special release; and 1974, 1975, and 1976 figures from Recreation Vehicle Industry Association, Facts and Trends (Chantilly, Va.: 1977).

a. Includes fifth wheel.

b. Motor home built on a conventional truck or automobile chassis. Data are not available prior to 1969.

c. Modified van type truck modified (generally with expandable top for headroom) to contain accommodations for sleeping, cooking, food storage, and toilet. Data are not available prior to 1969.

d. Chopped van type truck, or mini-motor home. The sheet metal behind the seat is removed for installation of living accommodations. Data are not available prior to 1969.

n.a.: not available.

Pages 579 thru 586 were not to be filmed.

XVII. TRANSPORTATION

The Interstate Commerce Commission in its various publications, especially Transport Statistics in the United States, gives extensive information about railroads. The Association of American Railroads also collects railway statistics.

Data on the Michigan highway system are obtained from the reports of the Michigan State Highway Commission. Information on drivers' licenses and the registration of motor vehicles is given in the reports of the Michigan Department of State. The Michigan Department of State Police collects statistics on the number of motor vehicle traffic accidents in Michigan. The Bureau of Public Roads of the U.S. Department of Commerce publishes an annual report, Highway Statistics, that gives a great deal of information about the nation's public roads.

The U.S. Bureau of the Census has published information on motor trucks in the 1977 Census of Transportation. The information is obtained on the basis of a sample of about 114,000 trucks out of an estimated 19,500,000 registered.

The U.S. National Travel Survey, another component of the Census of Transportation, is reported on in chapter XXVI.

The Federal Aviation Agency releases a number of publications, including the FAA Statistical Handbook of Aviation, FAA Air Traffic Activity, and Census of U.S. Civil Aircraft, which contain a wealth of information pertaining to aviation activities.

Information regarding freight traffic on Michigan waterways can be found in Waterborne Commerce of the United States, a publication of the Corps of Engineers of the U.S. Department of the Army.

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TABLE XVII-1. EXISTING MUNICIPAL AND RURAL ROAD MILEAGE, BY TYPE AND BY GOVERNMENTAL LEVEL WITH PRIMARY JURISDICTION, MICHIGAN AND THE UNITED STATES: 1968-1978

Year	Municipal	Rural						Total rural and municipal
		Type			Governmental level with primary jurisdiction			
		Surfaced	Non-surfaced	Total	State	Local	Federal[a]	
Michigan								
1968	19,145	76,768	18,257	95,025	7,952	87,071	2	114,170
1969	19,795	77,698	17,069	94,767	7,972	86,793	2	114,562
1970	19,939	77,472	17,318	94,790	7,971	86,817	2	114,729
1971	20,115	77,312	17,637	94,949	7,977	86,970	2	115,064
1972	20,232	80,732	17,096	97,828	7,968	87,200	2,660	118,060
1973	19,601	81,809	16,900	98,709	8,014	88,035	2,660	118,310
1974	19,916	81,935	16,740	98,675	8,243	87,972	2,460	118,591
1975	19,982	82,771	16,037	98,808	8,300	88,048	2,460	118,790
1976	20,053	83,624[b]	15,321[b]	98,945	8,316	88,169	2,460	118,998
1977	20,097	48,062	51,006	99,068	8,336	88,272	2,460	119,165
1978	20,190	48,264	50,905	99,169	8,345	88,364	2,460	119,359
United States								
1968	532,038	2,361,855	790,192	3,152,047	702,280	2,274,495	175,272	3,684,085
1969	548,573	2,391,325	770,401	3,161,726	704,371	2,274,709	182,676	3,710,299
1970	560,670	2,411,072	758,340	3,169,412	707,002	2,274,714	187,696	3,730,082
1971	593,047	2,415,878	750,017	3,165,895	712,785	2,256,271	196,839	3,758,942
1972	613,426	2,433,205	740,082	3,173,287	712,093	2,252,023	209,171	3,786,713
1973	631,129	2,436,070	739,684	3,175,754	710,461	2,249,446	215,747	3,806,883
1974	637,655	2,452,247	725,905	3,178,152	706,295	2,247,709	224,148	3,815,807
1975	639,550	2,483,355	715,241	3,198,596	710,797	2,260,544	227,255	3,838,146
1976	648,321	2,508,903	700,132	3,209,035	711,406	2,263,788	233,841	3,857,356
1977	687,328	2,498,428	681,411	3,179,839	702,215	2,235,670	242,147	3,867,400[c]
1978	694,655	2,534,409	655,999	3,190,408	704,421	2,255,526	230,850	3,885,452

SOURCE: Federal Highway Administration, Highway Statistics, 1968 through 1978 (Washington, D.C.: annually), Tables M-1 and 3 (1978).

a. Comprises mileage of roads not forming a part of state or local highway systems.

b. The decrease in surfaced roads in Michigan is due to the surface type reclassification of approximately 36,000 miles of county roads.

c. 233 miles were unclassified by surface.

TABLE XVII-2. EXISTING MILEAGE OF STATE-ADMINISTERED PRIMARY ROADS AND STREETS IN MICHIGAN, BY TYPE OF SURFACE: 1950-1978

Year	Gravel, stone, and stabilized soil	Low type bituminous	High type bituminous	Portland cement and all other	Total
1950	1,349	2,276	1,057	3,565	8,235
1951	1,195	2,407	1,206	3,441	8,249
1952	1,021	2,560	1,447	3,217	8,245
1953	983	2,487	1,585	3,171	8,226
1954	960	2,535	1,688	3,083	8,266
1955	881	2,549	1,815	2,987	8,232
1956	776	2,697	2,551	3,337	9,351
1957	657	2,748	2,710	3,213	9,328
1958	553	2,792	3,146	2,970	9,441
1959	408	2,779	3,285	2,858	9,330
1960	230	2,807	3,449	2,739	9,225
1961	49	2,873	3,585	2,660	9,167
1962	18	2,825	3,589	2,750	9,182
1963	0	2,819	3,634	2,754	9,207
1964	0	2,751	3,765	2,732	9,248
1965	0	2,668	3,139	2,191	7,998
1966	0	2,749	3,811	2,648	9,208
1967	0	2,798	3,776	2,634	9,208
1968	0	2,798	3,830	2,587	9,215
1969	0	2,827	3,843	2,570	9,240
1970	0	2,807	3,906	2,538	9,251
1971	0	2,801	3,956	2,493	9,250
1972	0	2,785	3,977	2,483	9,245
1973	0	2,817	3,959	2,515	9,291
1974	0	2,817	3,954	2,551	9,322
1975	0	2,843	3,960	2,587	9,390
1976	0	2,976	4,020	2,421	9,417
1977	0	2,983	3,871	2,600	9,454
1978	0	3,017	4,044	2,407	9,468

SOURCE: Federal Highway Administration, Highway Statistics, 1950 through 1978 (Washington, D.C.: annually), Table SM-2 (1978).

TABLE XVII-3. EXPENDITURES FOR CONSTRUCTION AND MAINTENANCE OF STATE-ADMINISTERED HIGHWAYS AND STREETS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1925-1978

(In thousands of dollars)

Year	Construction[a]		Maintenance	
	Michigan	United States[b]	Michigan	United States[b]
1925	24,481	403,843	2,050	119,304
1930	24,612	728,887	6,554	193,928
1935	15,295	438,306	5,643	187,122
1940	20,542	563,074	8,642	218,776
1945	5,414	210,467	13,406	287,734
1950	34,405	1,533,859	15,272	501,487
1955	107,452	3,102,994	23,652	675,629
1956	150,536	3,661,979	25,063	756,473
1957	171,737	4,139,322	27,858	812,426
1958	170,316	4,713,644	24,368	867,137
1959	187,155	5,075,864	27,870	903,070
1960	219,941	4,669,349	25,555	985,648
1961	285,028	5,105,084	26,083	1,019,839
1962	235,192	5,608,404	26,780	1,093,279
1963	204,869	6,047,762	27,403	1,133,389
1964	159,112	6,362,372	28,818	1,210,321
1965	173,508	6,458,214	32,600	1,309,786
1966	227,239	7,056,353	30,707	1,402,296
1967	220,554	7,339,818	38,090	1,513,502
1968	215,732	7,866,362	35,172	1,593,652
1969	193,564	7,499,706	41,496	1,485,656
1970	220,900	8,866,017	41,984	1,928,819
1971	266,565	9,416,682	49,487	2,086,947
1972	266,723	9,383,859	49,497	2,236,190
1973	255,982	8,981,484	53,574	2,458,251
1974	311,408	9,390,755	55,676	2,656,449
1975	309,758	10,168,550	65,747	2,946,178
1976	294,332	9,676,657	70,260	3,116,823
1977	290,658	8,882,872	81,795	3,465,796
1978	243,517	10,015,631	87,450	4,037,824

SOURCE: Federal Highway Administration, Highway Statistics, 1925 through 1975 (Washington, D.C.: annually), Table SF-4 (1950-1978 data).

a. Includes acquisition of right-of-way, preliminary and construction engineering, construction of roads, construction of major structures, and installation of traffic service facilities.

b. Prior to 1959 Alaska and Hawaii excluded.

TABLE XVII-4. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972 AND 1977

Vehicles and operational characteristics	Trucks (thousands)		Truck-miles (millions)		Average miles per truck (thousands)	
	1972	1977	1972	1977	1972	1977
	Truck and truck-miles					
Major use						
Agriculture	96	98.8	716	747.0	7.5	7.6
Forestry & lumbering	6	3.9	80	86.3	12.5	22.0
Mining	--	2.6	--	64.3	--	25.0
Construction	61	69.6	806	1,106.3	13.3	15.9
Manufacturing	20	18.7	408	429.5	20.9	22.9
Wholesale & retail trade	58	77.1	1,093	1,533.0	18.7	19.8
For hire	27	24.0	1,080	1,286.3	40.2	53.5
Personal transportation	326	613.8	3,685	6,652.1	11.3	10.8
Utilities	17	30.6	193	429.1	11.5	14.0
Services	57	49.7	793	765.9	13.9	15.4
All other	9	12.9	--	322.9	--	--
Annual miles						
Less than 5,000	123	182.8	273	380.0	2.2	2.1
5,000 - 9,999	167	216.8	1,139	1,482.0	6.8	6.8
10,000 - 19,999	273	412.5	3,514	5,316.9	12.9	12.9
20,000 - 29,999	70	116.1	1,596	2,540.4	22.7	21.9
30,000 - 49,999	26	45.2	902	1,579.6	35.3	34.9
50,000 - 74,999	10	15.6	592	896.9	59.5	57.5
75,000 or more	9	12.6	960	1,227.6	110.4	97.4
Range of operation						
Local	543	868.9	5,932	10,048.0	10.9	11.6
Short range	65	78.8	1,538	1,914.9	23.6	24.6
Long range	22	30.3	762	1,315.9	35.1	43.4
Not reported	47	4.5	744	8.2	15.9	3.9
Off the road	--	19.2	--	136.3	--	47.2
Type of fuel						
Gasoline	604	959.50	6,973	11,379.0	11.6	11.9
Diesel & LPG	24	42.00	1,232	2,043.2	51.1	48.0
Not reported	49	.1	771	--	15.6	--
Principal products carried						
Farm products	96	96.0	853	727.9	8.8	--
Mining products	1	1.1	10	21.3	12.6	19.4
Forest products	8	12.4	97	155.1	12.6	12.5
Processed foods	16	26.1	360	675.9	22.7	25.9
Textile products	5	2.1	97	26.3	20.0	12.4
Building materials	61	59.1	862	874.7	14.2	14.8
Household goods	8	9.5	99	261.1	12.0	27.5
Furniture	3	6.5	78	87.8	27.8	13.6
Paper products	5	7.9	127	214.8	27.4	27.3
Chemicals	6	5.8	115	113.4	20.5	19.5

TABLE XVII-4. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972 AND 1977 (cont.)

Vehicles and operational characteristics	Trucks (thousands)		Truck-miles (millions)		Average miles per truck (thousands)	
	1972	1977	1972	1977	1972	1977
Truck and truck-miles (cont.)						
Petroleum	8	10.0	211	225.1	24.8	22.4
Primary metal products	5	4.1	132	144.8	27.8	35.5
Fabricated metal products	10	7.3	199	146.0	19.6	20.0
Machinery (exc. electrical)	3	6.6	50	129.0	17.2	19.6
Electrical machinery	8	15.7	112	226.7	13.6	14.5
Transportation equipment	28	18.4	521	459.5	18.9	25.0
Scrap, refuse, or garbage	18	24.2	163	245.7	8.9	10.1
Mixed cargo	26	40.6	501	1,033.9	19.5	25.5
Personal transport	312	560.8	3,619	6,073.4	11.6	10.8
Other	31	14.2	507	323.2	16.6	22.8
Not reported	21	2.7	265	(a)	12.8	(a)
TOTAL	677	931.1	8,975	12,175.3	13.3	13.07
Truck and truck-miles except pickups and panels						
Major use						
Agriculture	27	23.0	175	170.6	6.5	7.3
Forestry & lumbering	3	2.3	52	74.5	16.0	31.7
Mining	--	.9	--	16.8	--	17.9
Construction	29	25.7	371	325.8	13.0	12.7
Manufacturing	12	11.1	258	338.8	21.4	30.5
Wholesale & retail trade	28	27.5	605	603.7	21.3	21.9
For hire	23	20.0	1,014	1,145.9	43.6	57.2
Personal transportation	3	.5	8	4.1	2.5	8.7
Utilities	13	10.8	157	126.4	11.6	11.8
Services	16	12.3	221	173.4	13.7	14.1
All other	5	9.3	--	319.0	--	--
Annual miles						
Less than 5,000	39	36.7	91	69.6	2.4	1.9
5,000 - 9,999	34	21.7	232	147.3	6.9	6.8
10,000 - 19,999	41	33.3	541	434.5	13.1	13.0
20,000 - 29,999	20	16.4	454	374.4	23.0	22.8
30,000 - 49,999	12	12.7	424	468.6	36.3	36.8
50,000 - 74,999	8	10.4	473	604.0	60.5	58.1
75,000 or more	8	12.6	727	1,227.6	96.6	97.4
Range of operation						
Local	119	99.4	1,337	1,326.0	11.2	13.3
Short range	26	20.8	874	877.0	33.3	42.2
Long range	9	14.5	623	1,062.8	67.2	73.1
Not reported	6	1.3	109	8.2	19.4	6.2
Off the road	--	7.8	--	51.3	--	--
Type of fuel						
Gasoline	128	103.0	1,571	1,303.3	12.2	12.6
Diesel & LPG	24	40.0	1,227	2,022.7	51.1	50.6
Not reported	7	.1	144	--	19.3	--

TABLE XVII-4. NUMBER, TRUCK-MILES, AND AVERAGE MILES DRIVEN OF MOTOR TRUCKS LICENSED IN MICHIGAN, BY MAJOR USE, ANNUAL MILES, RANGE OF OPERATION, TYPE OF FUEL CONSUMED, AND PRINCIPAL PRODUCTS CARRIED: 1972 AND 1977 (cont.)

Vehicles and operational characteristics	Trucks (thousands)		Truck-miles (millions)		Average miles per truck (thousands)	
	1972	1977	1972	1977	1972	1977
Truck and truck-miles except pickups and panels (cont.)						
Principal products carried						
Farm products	30	23.4	283	244.2	9.4	--
Mining products	1	1.0	7	21.1	11.8	20.8
Forest products	3	3.0	52	84.3	16.8	28.4
Processed foods	10	10.8	261	338.8	27.3	31.4
Textile products	1	.4	15	7.2	25.5	18.4
Building materials	28	29.7	432	436.0	15.4	14.7
Household goods	3	4.8	39	144.4	14.9	30.3
Furniture	2	1.5	67	38.2	28.7	25.7
Paper products	1	1.5	53	54.0	38.9	36.4
Chemicals	2	2.1	41	43.3	23.4	20.5
Petroleum	8	6.9	198	200.7	26.3	29.2
Primary metal products	3	2.4	99	111.4	36.6	45.9
Fabricated metal products	6	5.3	119	125.4	21.2	23.6
Machinery (exc. electrical)	2	3.3	20	61.7	12.1	18.8
Electrical machinery	3	2.8	48	59.9	14.9	21.8
Transportation & equipment	5	7.2	249	321.4	47.0	44.7
Scrap, refuse, or garbage	7	6.6	77	106.4	11.3	16.2
Mixed cargo	10	10.9	327	568.9	31.3	52.0
Personal transport	20	1.2	245	6.8	12.1	5.8
Other	11	4.3	224	204.8	20.0	47.5
Not reported	5	1.1	88	(a)	16.5	(a)
TOTAL	160	130.2	2,942	3,178.9	18.4	24.4

SOURCE: Bureau of the Census, 1972 Census of Transportation, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1973), TC72-T-23, Table 2; and Bureau of the Census, 1977 Census of Transportation, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1979), TC77-T-23, Table 2.

a. Allocated among the various other items.

--: Indicates that there were not a significant number of trucks with this characteristic to display, that is, fewer than 100 total observations in sample or less than .05 percent of the total in any one cell.

TABLE XVII-5. DISTRIBUTION OF MOTOR TRUCKS IN MICHIGAN, BY BODY TYPE AND MAJOR USE: 1977

(Thousands of vehicles)

Body type	Major use							
	Agri-culture	Construc-tion	Manu-facturing	Retail trade	Utilities	Ser-vices	Personal transpor-tation	Total
Pickup	71.9	34.1	3.9	19.2	5.4	19.6	428.4	589.1
Panel or van	3.4	9.7	3.2	16.7	14.4	16.0	180.1	257.9
Multistop or walk-in	.1	.1	.5	.2	.1	1.9	4.7	10.9
Platform with added devices	2.9	2.7	.4	2.1	.5	1.0	.2	11.0
Low boy or depressed center	.1	1.6	.2	.2	.2	.1	-	2.7
Other platform	13.9	5.7	3.4	2.8	.5	1.3	.3	33.3
Cattle rack	2.3	-	-	-	-	-	-	2.3
Insulated nonrefrig-erated van	.2	.1	.2	-	-	-	-	1.3
Insulated refrig. van	.3	-	.5	.5	-	.2	-	5.1
Furniture van	-	-	.1	1.3	-	.3	-	4.9
Open top van	.1	.2	.2	-	-	.1	-	.7
Other enclosed vans	.6	.6	3.8	1.6	.2	1.4	-	27.2
Beverage	-	-	-	.1	-	-	-	3.6
Utility	-	.5	-	-	8.6	.7	-	9.9
Winch or crane	-	.3	-	.2	.2	.4	-	1.5
Wrecker	-	-	.1	.1	-	3.5	-	3.8
Pole or logging	-	-	.1	-	.1	-	-	.9
Auto transport	-	-	-	-	-	.1	-	3.1
Mobile home puller	-	.1	-	.2	-	-	-	.3
Garbage hauler:								
Front loader	-	-	-	-	-	.2	-	.2
Rear loader	-	-	-	-	-	.9	-	.9
Roll off	-	-	.1	-	-	.2	-	.3
Not specified	-	-	-	-	-	.2	-	.2

TABLE XVII-5. DISTRIBUTION OF MOTOR TRUCKS IN MICHIGAN, BY BODY TYPE AND MAJOR USE: 1977 (cont.)

(Thousands of vehicles)

Body type	Major use							
	Agri-culture	Construc-tion	Manu-facturing	Retail trade	Utilities	Ser-vices	Personal transpor-tation	Total
Dump	2.5	11.6	.7	.4	.5	.7	-	18.5
Tank for liquids	.4	.2	.7	3.4	.2	1.0	-	8.2
Tank for dry bulk	-	.2	.2	-	-	-	-	.7
Concrete mixer:								
Front discharger	-	.4	-	-	-	-	-	.4
Rear discharger	-	1.7	.7	-	-	-	-	2.5
Not specified	-	-	.1	-	-	-	-	.1
Other	-	-	-	-	-	-	-	.1
Not reported	-	-	-	-	-	-	-	.1
Total trucks[a]	98.8	69.6	18.7	49.1	30.6	49.7	613.8	1,001.7

SOURCE: Bureau of the Census, U.S. Census of Transportation, 1977, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1979), TC77-T23, Table 3.

a. Includes categories not specified in listing.

--: Indicates less than .05 percent.

TABLE XVII-6. PERCENTAGE DISTRIBUTION OF MOTOR TRUCKS IN MICHIGAN, BY MAJOR USE AND ANNUAL MILEAGE: 1972 AND 1977

	Annual mileage class															
	Less than 5,000		5,000-9,999		10,000-19,999		20,000-29,999		30,000-49,999		50,000-74,999		75,000- or more		Total	
Major use	1972	1977	1972	1977	1972	1977	1972	1977	1972	1977	1972	1977	1972	1977	1972	1977
Agriculture	31.4	22.4	18.7	11.7	7.9	6.5	4.7	3.4	3.0	2.0	1.9	2.6	4.4	3.2	14.2	9.8
Forestry & lumbering	1.6	.2	.5	.9	1.0	--	.5	.2	1.9	1.1	1.9	1.3	--	1.6	.9	.4
Mining	--	.1	--	.1	--	--	--	.2	--	3.5	--	1.3	--	--	--	.2
Construction	8.4	5.6	8.4	4.1	8.9	5.9	9.5	17.7	18.2	6.4	5.8	15.4	2.2	1.6	9.0	6.9
Manufacturing	1.7	1.7	2.3	1.7	2.5	1.4	3.4	1.6	12.5	2.9	7.8	11.5	6.7	7.9	2.9	1.9
Wholesale & retail trade	3.0	3.2	6.4	3.7	8.4	6.6	17.0	20.1	26.1	19.2	12.6	17.9	13.3	7.9	8.6	7.7
For hire	.9	.9	1.8	.6	2.1	1.2	4.8	1.4	15.1	6.2	48.5	33.3	56.6	59.5	4.0	3.1
Personal transportation	44.6	58.1	47.2	69.4	57.6	70.8	43.0	40.9	6.8	34.9	18.6	10.3	11.2	--	48.1	61.3
Utilities	.9	1.0	3.7	3.5	2.6	3.1	2.8	5.6	.8	3.8	--	.6	1.1	--	2.5	5.0
Services	5.0	3.9	9.4	4.0	8.0	4.0	13.7	7.8	14.8	16.8	--	3.2	2.2	1.6	8.5	.4
All other	2.5	3.4	1.8	.5	1.0	.5	.6	1.1	.8	3.2	2.9	2.8	2.2	.8	1.4	3.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Bureau of the Census, 1972 Census of Transportation, Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1973), TC72-T23, Table 6; and Bureau of the Census, 1977 Census of Transportation Truck Inventory and Use Survey, Michigan (Washington, D.C.: 1979), TC77-T-23, Table 3.

--: Indicates less than .05 percent.

TABLE XVII-7. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1979

County	Passenger	Commercial	Trailer	Motorcycle	Total
Alcona	5,376	2,145	1,599	319	9,439
Alger	4,392	2,122	1,081	379	7,974
Allegan	39,481	15,032	8,341	2,634	65,488
Alpena	17,138	6,585	4,700	1,123	29,546
Antrim	9,324	3,198	2,485	614	15,621
Arenac	7,136	3,073	2,086	480	12,775
Baraga	4,170	1,946	872	276	7,264
Barry	21,750	8,163	5,402	1,793	37,108
Bay	65,233	16,573	14,733	3,292	99,831
Benzie	6,119	2,380	1,671	417	10,587
Berrien	92,775	25,974	15,318	4,743	138,810
Branch	20,941	8,013	5,971	1,547	36,472
Calhoun	78,151	19,674	14,080	4,969	116,874
Cass	24,521	9,520	5,136	1,891	41,068
Charlevoix	10,902	3,908	2,508	821	18,139
Cheboygan	10,874	4,264	3,026	906	19,070
Chippewa	13,357	5,521	3,518	898	23,294
Clare	11,397	4,621	3,077	681	19,776
Clinton	27,396	9,849	6,871	2,371	46,487
Crawford	4,707	1,854	1,296	268	8,125
Delta	19,819	7,778	6,151	1,192	34,940
Dickinson	13,795	5,149	3,521	986	23,451
Eaton	40,998	11,968	8,990	3,205	65,161
Emmet	12,752	4,469	2,710	886	20,817
Genesee	255,393	57,036	41,196	13,147	366,772
Gladwin	9,159	3,898	2,864	621	16,542
Gogebic	9,150	3,706	2,023	516	15,395
Grand Traverse	32,814	9,827	7,934	1,941	52,516
Gratiot	20,094	7,537	5,376	1,590	34,597
Hillsdale	20,960	8,391	5,526	1,629	36,506
Houghton	15,459	5,105	2,483	935	23,982
Huron	19,461	7,889	5,629	1,383	34,362
Ingham	151,432	31,407	19,620	8,362	210,821
Ionia	24,050	8,571	5,412	2,197	40,230
Iosco	14,712	4,713	4,085	972	24,482
Iron	7,100	3,191	1,733	381	12,405
Isabella	20,886	7,106	4,792	1,423	34,207
Jackson	80,791	21,867	14,432	5,121	122,211
Kalamazoo	116,002	25,910	17,169	6,804	165,885
Kalkaska	5,410	2,841	1,867	362	10,480

TABLE XVII-7. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1979 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Kent	258,702	54,979	45,065	14,214	372,960
Keweenaw	1,023	357	190	64	1,634
Lake	3,583	1,503	943	205	6,234
Lapeer	33,228	12,299	7,098	2,605	55,230
Leelanau	7,167	2,517	1,903	425	12,012
Lenawee	47,241	15,812	9,575	3,094	75,722
Livingston	50,564	14,455	8,918	3,060	76,997
Luce	3,085	1,545	1,088	159	5,877
Mackinac	4,648	2,037	1,416	432	8,533
Macomb	436,922	61,111	44,606	16,495	559,134
Manistee	12,075	4,241	2,709	681	19,706
Marquette	34,500	12,197	6,147	2,749	55,593
Mason	13,496	4,655	3,142	1,024	22,317
Mecosta	13,759	5,061	3,278	820	22,918
Menominee	13,056	5,011	3,206	844	22,117
Midland	41,423	9,891	9,561	2,433	63,308
Missaukee	4,710	2,430	1,345	331	8,816
Monroe	69,879	20,021	13,914	4,561	108,375
Montcalm	23,613	8,856	5,963	1,792	40,224
Montmorency	4,057	1,987	1,275	243	7,562
Muskegon	85,947	21,301	15,922	5,492	128,662
Newaygo	16,414	6,893	4,365	1,401	29,073
Oakland	641,046	98,220	64,066	24,673	828,005
Oceana	10,278	4,484	2,248	825	17,835
Ogemaw	8,512	3,686	2,539	600	15,337
Ontonagon	4,816	2,169	1,407	226	8,618
Osceola	8,612	3,877	2,300	666	15,455
Oscoda	3,589	1,666	1,107	253	6,615
Otsego	7,861	3,187	1,957	532	13,537
Ottawa	84,497	21,763	19,087	5,708	131,055
Presque Isle	7,140	3,253	1,996	452	12,841
Roscommon	9,433	3,467	2,901	570	16,371
Saginaw	125,674	27,722	23,527	5,831	182,754
St. Clair	73,329	19,208	12,649	4,382	109,568
St. Joseph	29,034	10,496	6,317	2,191	48,038
Sanilac	19,928	8,047	4,814	1,530	34,319
Schoolcraft	4,601	1,863	1,297	322	8,083
Shiawassee	36,983	12,475	7,575	2,912	59,945
Tuscola	28,055	11,652	7,750	2,135	49,592
Van Buren	32,463	12,562	5,978	2,046	53,049

TABLE XVII-7. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1979 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Washtenaw	143,392	25,910	15,083	6,939	191,324
Wayne	1,303,685	169,591	114,095	40,182	1,627,553
Wexford	12,842	4,639	3,518	880	21,879
Nonresident	21,899	11,028	14,137	156	47,220
TOTAL	5,162,138	1,122,898	775,261	251,210	7,311,507

SOURCE: Michigan Department of State, special release.

TABLE XVII-8. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE: 1974-1979

Type	1974	1975	1976	1977	1978	1979
Passenger	4,514,331	4,598,247	4,681,236	4,890,094	5,126,907	5,162,138
Commercial	817,169	857,460	911,734	987,822	1,081,990	1,122,898
Trailer	722,175	774,265	760,302	811,224	818,232	775,261
Motorcycle	306,297	288,734	268,938	260,816	242,706	251,210
Municipal	14,609	15,924	69,649	9,571	n.a.	n.a.
TOTAL	6,374,581	6,534,630	6,691,859	6,959,527	7,269,835	7,311,507

SOURCE: Michigan Department of State, special release.

n.a.: not available.

TABLE XVII-9. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1975-1979

Sex	Date of computer run 6/25/75	6/26/76	7/1/77	7/1/78	7/1/79
Number of master driving records on file (including lapsed)					
Males	3,382,801	3,416,672	3,455,866	3,505,728	3,554,632
Females	2,852,965	2,924,175	2,993,135	3,065,784	3,135,165
Both	6,235,766	6,340,847	6,449,001	6,571,512	6,689,797
Estimated population of active Michigan drivers					
Males	3,166,000	3,200,500	3,238,221	3,273,625	3,323,500
Females	2,784,000	2,849,500	2,911,779	2,976,375	3,026,500
Both	5,950,000	6,050,000	6,150,000	6,250,000	6,350,000
Studied drivers (drivers with valid licenses and/or violations during past year)					
Males	2,994,505	3,057,949	3,100,225	3,151,904	3,188,638
Females	2,628,239	2,723,556	2,787,587	2,858,094	2,903,637
Both	5,622,744	5,781,505	5,887,812	6,009,998	6,[illegible],275
Studied drivers with operator licenses only					
Males	2,428,205	2,450,181	2,471,763	2,505,414	2,519,309
Females	2,581,846	2,671,399	2,731,197	2,797,800	2,839,120
Both	5,010,051	5,121,580	5,202,960	5,303,214	5,358,429
Studied drivers with chauffeur licenses only					
Males	265,814	275,173	277,634	286,846	298,150
Females	17,554	19,757	21,991	25,211	28,720
Both	283,368	294,930	299,625	312,057	326,870
Studied drivers with operator/cycle endorsement					
Males	246,087	272,513	285,406	288,789	293,112
Females	25,055	28,816	30,537	30,902	30,895
Both	271,142	301,329	315,943	319,691	324,007
Studied drivers with chauffeur/cycle endorsement					
Males	41,888	50,005	55,455	59,603	64,560
Females	828	1,055	1,257	1,432	1,616
Both	42,716	51,060	56,712	61,035	66,176
Studied drivers with glasses required					
Males	954,898	982,547	991,793	1,004,776	1,009,226
Females	1,059,750	1,107,968	1,127,818	1,154,526	1,165,206
Both	2,014,648	2,090,515	2,119,611	2,159,302	2,169,432

TABLE XVII-9. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1975-1979 (cont.)

Sex	Date of computer run 6/25/75	6/26/76	7/1/77	7/1/78	7/1/79
Drivers convicted of driving while under influence of liquor in past year[a]					
Males	10,211	9,906	9,116	10,329	10,016
Females	715	602	654	730	706
Both	10,926	10,508	9,770	11,059	10,722
Drivers convicted of impaired (liquor) driving in past year[a]					
Males	19,936	21,234	21,284	20,541	20,446
Females	1,555	1,800	1,826	1,844	2,036
Both	21,491	23,034	23,110	22,385	22,482
Crash drivers rated as having been drinking (to some extent) during past year[a]					
Males	40,492	42,856	44,710	45,379	47,415
Females	5,322	5,991	6,479	6,886	7,604
Both	45,814	48,847	51,189	52,265	55,019
Drivers with no crashes or violation convictions during past year[a]					
Males	2,217,825	2,280,007	2,303,109	2,323,207	2,317,224
Females	2,321,751	2,402,618	2,449,421	2,503,242	2,519,658
Both	4,539,576	4,682,625	4,752,530	4,826,449	4,836,882
Drivers with no crashes during past year[a]					
Males	2,685,035	2,749,101	2,759,106	2,802,971	2,830,130
Females	2,484,633	2,574,242	2,618,152	2,681,703	2,717,143
Both	5,169,668	5,323,343	5,377,248	5,484,674	5,547,273
Drivers with no violation convictions during past year[a]					
Males	2,394,826	2,459,076	2,503,481	2,526,458	2,522,291
Females	2,425,106	2,510,036	2,572,005	2,631,228	2,654,367
Both	4,819,932	4,969,112	5,075,486	5,157,686	5,176,658
Drivers with one crash during past year[a]					
Males	278,786	278,546	306,098	313,008	321,468
Females	135,721	141,053	159,696	166,178	175,329
Both	414,507	419,599	465,794	479,186	496,797
Drivers with one violation conviction during past year[a]					
Males	442,960	446,833	446,554	460,270	483,612
Females	176,691	185,516	187,439	196,130	213,533
Both	619,651	632,349	633,993	656,400	697,145

TABLE XVII-9. MICHIGAN PASSENGER CAR OPERATORS, BY SEX AND TYPE OF LICENSE: 1975-1979 (cont.)

Sex	Date of computer run 6/25/75	6/26/76	7/1/77	7/1/78	7/1/79
	Drivers with two or more crashes during past year[a]				
Males	30,684	30,302	35,021	35,925	37,040
Females	7,885	8,261	9,739	10,213	11,165
Both	38,569	38,563	44,760	46,138	48,205
	Drivers with two or more violation convictions during past year[a]				
Males	156,719	152,040	150,190	165,176	182,735
Females	26,442	28,004	28,143	30,736	35,737
Both	183,161	180,044	178,333	195,912	218,472

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No. 12 (Lansing: 1980), pp. 14-20.

a. Calendar years 1974, 1975, 1976, 1977, and 1978, respectively.

TABLE XVII-10. CHARACTERISTICS OF HOLDERS OF MICHIGAN MOTOR VEHICLE OPERATORS' LICENSES: 1979

Item	Males	Females	Total
Overall Michigan Driver Population			
Number of records of drivers 7/1/79	3,554,632	3,135,165	6,689,797
Est. driver population 7/1/79	3,323,500	3,026,500	6,350,000
Studied drivers of record 7/1/79	3,188,638	2,903,637	6,092,275
Median ages of drivers 7/1/79	35	35	35
Accident/violation free drivers 1978	38.0%	41.4%	79.4%
Accident free drivers 1978	46.5%	44.6%	91.1%
Violation free drivers 1978	41.4%	43.6%	85.0%
Percentages of drivers of record with the following characteristics			
General 7/1/79			
With original licenses	6.5	6.2	12.7
With operator licenses	41.4	46.6	88.0
With chauffeur licenses	4.9	0.5	5.4
With operator cycle licenses	4.8	0.5	5.3
With chauffeur cycle licenses	1.1	0.02	1.1
Glasses required	16.5	19.1	35.6
Daylight driving only	0.09	0.06	0.15
Handicap restrictions	0.2	0.2	0.4
With 1978 records of:			
Driving on probation	2.65	2.54	5.19
Failed probation	0.19	0.05	0.24
Sent warning letter	3.2	1.0	4.2
Reexamined	1.1	0.1	1.2
Suspended - FAC[a]	1.4	0.4	1.8
Convicted - DUI[b]	0.16	0.01	0.17
Convicted - DWI[c]	0.34	0.03	0.37
Reckless Driving	0.08	0.004	0.08
Careless driving	0.26	0.03	0.29
Driving while license suspended/ revoked/denied	0.27	0.02	0.28
Speeding	6.8	2.6	9.4
Speeding, energy speed	2.7	0.8	3.4
Reexamined, first time	0.67	0.10	0.78
Involved in fatal type crash	0.019	0.005	0.024
Involved in bodily injury type crash	1.9	1.0	2.9
Accident with alcohol	0.8	0.1	0.9
Accident with alcohol fatal type	0.006	0.001	0.006
Accident with alcohol bodily injury type crash	0.344	0.061	0.406
Implied consent refusal suspension	0.096	0.008	0.104

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No.12 (Lansing: 1 July 1979), p. 2.

a. Failure to appear in court.

b. Driving under the influence of liquor.

c. Driving with an impairment (due to liquor).

TABLE XVII-11. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1979

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1963	1.464	1.229	2.693	15-16[a]
1962	1.447	1.253	2.700	17[a]
1961	1.448	1.277	2.725	18[a]
1960	1.449	1.290	2.739	19[a]
1959	1.484	1.333	2.817	20
1958	1.505	1.364	2.869	21
1957	1.522	1.390	2.912	22
1956	1.477	1.361	2.838	23
1955	1.448	1.332	2.780	24
1954	1.419	1.315	2.734	25
1953	1.354	1.245	2.599	26
1952	1.338	1.253	2.591	27
1951	1.312	1.218	2.530	28
1950	1.234	1.152	2.386	29
1949	1.222	1.146	2.368	30
1948	1.201	1.145	2.346	31
1947	1.242	1.181	2.423	32
1946	1.104	1.042	2.146	33
1945	.912[b]	.862[b]	1.774[b]	34
1944	.922[b]	.866[b]	1.788[b]	35
1943	.983	.935	1.918	36
1942	.962	.913	1.875	37
1941	.844	.799	1.643	38
1940	.788	.745	1.533	39
1939	.747	.705	1.452	40
1938	.752	.716	1.468	41
1937	.709	.678	1.387	42
1936	.690	.665	1.355	43
1935	.720	.666	1.368	44
1934	.677	.645	1.322	45
1933	.644	.612	1.256	46
1932	.678	.646	1.324	47
1931	.679	.648	1.327	48
1930	.727	.678	1.405	49
1929	.708	.666	1.374	50
1928	.735	.668	1.403	51

TABLE XVII-11. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1979 (cont.)

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1927	.758	.688	1.446	52
1926	.735	.673	1.408	53
1925	.732	.675	1.407	54
1924	.737	.681	1.418	55
1923	.707	.694	1.351	56
1922	.699	.630	1.329	57
1921	.701	.645	1.346	58
1920	.654	.594	1.248	59
1919	.582	.543	1.125	60
1918	.612	.557	1.169	61
1917	.569	.512	1.081	62
1916	.554	.490	1.044	63
1915	.527	.465	.922	64
1914	.514	.443	.957	65
1913	.473	.404	.877	66
1912	.443	.386	.829	67
1911	.391	.336	.727	68
1910	.375	.329	.704	69
1909	.345	.298	.643	70
1908	.328	.282	.610	71
1907	.303	.252	.555	72
1906	.270	.227	.497	73
1905	.293	.217	.460	74
1904	.237	.182	.419	75
1903	.211	.156	.367	76
1902	.191	.136	.327	77
1901	.154	.107	.261	78
1900	.149	.104	.253	79
1899	.114	.074	.188	80
1898	.110	.070	.180	81
1897	.089	.051	.140	82
1896	.078	.043	.121	83
1895	.056	.042	.098	84
1894	.045	.027	.072	85
1893	.036	.022	.058	86

TABLE XVII-11. PERCENTAGE DISTRIBUTION OF MICHIGAN DRIVERS, BY YEAR OF BIRTH AND SEX: 1979 (cont.)

Year of birth	Males (percentage)	Females (percentage)	Both (percentage)	Age equivalent
1892	.028	.016	.044	87
1891	.021	.008	.029	88
1890	.014	.005	.019	89
1889	.010	.003	.013	90
1888	.006	.002	.008	91
1887	.004	.001	.005	92
1886	.002	.001	.003	93
1885	.001	.000	.001	94
ALL DRIVERS	52.339	47.661	100.000	15-oldest

SOURCE: Michigan Department of State, Michigan Driver Statistics, Report No. 12 (Lansing: 1980), pp. 23-25.

a. Driver population percentages under 19 have been adjusted upward from the actual studied driver percentages of populations to reflect the incidence of active young drivers in Michigan more realistically.

b. Median ages of drivers.

TABLE XVII-12. MOTOR VEHICLE ACCIDENTS AND MILEAGE AND DEATH RATE IN MICHIGAN: 1942-1979

Year	Deaths	Injuries	Accidents	Estimated mileage (millions)	Death rate[a]
1942	1,325	28,967	100,125	13,900.3	9.5
1943	992	21,988	71,450	10,530.0	9.4
1944	1,034	23,401	72,013	10,651.0	9.7
1945	1,150	27,755	83,160	11,915.6	9.7
1946	1,470	34,479	110,531	16,191.1	9.1
1947	1,447	38,195	137,619	17,661.1	8.2
1948	1,512	40,892	140,172	19,069.2	7.9
1949	1,441	41,647	143,197	19,990.4	7.2
1950	1,605	45,734	161,750	21,494.5	7.5
1951	1,640	48,418	176,587	22,668.1	7.2
1952	1,736	49,119	160,829	23,093.1	7.5
1953	1,905	57,834	184,174	25,346.9	7.5
1954	1,793	56,444	185,534	26,041.2	6.9
1955	2,016	62,234	196,812	28,282.5	7.1
1956	1,746	61,158	197,995	28,429.3	6.1
1957	1,548	60,067	191,915	29,252.2	5.3
1958	1,382	57,767	177,934	29,411.3	4.7
1959	1,473	64,873	198,771	30,679.0	4.8
1960	1,604	91,026	209,724	31,842.4	5.0
1961	1,567	93,350	199,973	32,101.5	4.9
1962	1,574	108,143	233,078	34,498.0	4.6
1963	1,887	126,896	261,794	36,452.2	5.2
1964	2,122	144,623	284,444	38,617.6	5.5
1965	2,136	155,258	310,598	40,857.4	5.2
1966	2,298	156,694	302,880	43,940.1	5.2
1967	2,137	151,297	299,004	45,053.6	4.7
1968	2,392	160,413	305,495	48,047.4	5.0
1969	2,487	175,400	331,223	50,904.9	4.9
1970	2,177	161,719	313,715	53,148.1	4.1
1971	2,152	157,664	314,015	55,539.7	3.9
1972	2,258	178,929	359,745	57,817.1	3.9
1973	2,213	169,485	350,864	58,478.4	3.8
1974	1,825	141,132	324,763	55,748.7	3.4
1975	1,811	147,299	333,560	56,260.5	3.2
1976	1,955	162,894	365,600	61,827.4	3.2
1977	1,950	166,389	374,751	64,800.0	3.0
1978	2,076	169,202	389,193	67,375.0	3.1
1979	1,849	162,571	366,435	64,882.0	2.9

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts, 1975 (Lansing: 1976), p. 56, and special release (1976-1979 data).

a. Deaths per 100 million miles of travel.

TABLE XVII-13. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED AND PERSONS INJURED, IN MICHIGAN, BY TYPE OF ACCIDENT: 1979

Type of accident	Number of accidents				Number of persons			
						Injured		
	Fatal	Injury	Property damage	Total	Killed	Incapacitated	Noncapacitated	Possibly[a]
Motor vehicle:								
Overturned	117	6,353	4,548	11,018	122	1,945	3,552	2,999
Other noncollision	15	909	1,237	2,161	15	274	448	311
Motor vehicle collision with:								
Pedestrian	316	4,734	221	5,271	319	1,739	1,809	1,513
Motor vehicle in transport	693	69,717	168,859	239,269	824	12,978	30,734	70,551
Motor vehicle - other roadway	9	51	35	95	9	44	33	51
Parked motor vehicle	28	4,253	32,060	36,341	31	670	2,250	2,360
Railroad train	28	222	215	465	36	114	111	97
Pedalcyclist	54	3,669	588	4,311	54	795	1,813	1,247
Animal	4	493	15,847	16,344	4	93	248	254
Fixed object	391	17,937	31,794	50,122	428	4,737	10,356	8,140
Other object	7	231	800	1,038	7	54	112	139
TOTAL	1,662	108,569	256,204	366,435	1,849	23,443	51,466	87,662

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts, 1978 and special release.

a. No visible injury but complaint of pain or momentary unconciousness.

TABLE XVII-14. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1979

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Alcona	4	109	229	0	214	128	342	4	161
Alger	5	102	251	0	176	182	358	6	166
Allegan	21	702	1,873	134	1,659	803	2,596	27	1,089
Alpena	6	291	790	0	598	489	1,087	10	412
Antrim	8	155	429	0	346	246	592	10	222
Arenac	8	170	440	65	301	252	618	8	284
Baraga	4	73	282	0	216	143	359	4	119
Barry	12	437	1,229	0	1,172	506	1,678	12	644
Bay	26	1,425	3,451	231	2,864	1,807	4,902	30	2,036
Benzie	4	127	351	0	270	212	482	5	172
Berrien	30	1,873	5,376	787	4,574	1,918	7,279	31	2,759
Branch	10	420	1,214	117	926	601	1,644	12	623
Calhoun	24	1,607	4,588	889	4,173	1,157	6,219	28	2,317
Cass	17	461	1,432	0	1,079	831	1,910	20	702
Charlevoix	5	193	614	0	406	406	812	5	298
Cheboygan	4	266	521	90	436	265	791	4	385
Chippewa	8	201	956	256	761	148	1,165	11	288
Clare	8	249	891	0	581	567	1,148	10	360
Clinton	11	528	1,375	172	1,180	562	1,914	12	767
Crawford	5	125	374	161	208	135	504	6	206
Delta	11	358	1,353	0	1,083	639	1,722	12	546
Dickinson	5	269	860	0	584	550	1,134	7	415
Eaton	20	877	1,980	300	1,310	1,267	2,877	23	1,303
Emmet	3	344	802	5	557	587	1,149	3	550
Genesee	77	5,031	11,104	1,131	10,964	4,117	16,212	85	7,719

TABLE XVII-14. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1979 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Gladwin	3	164	471	0	345	293	638	3	244
Gogebic	3	185	553	0	418	323	741	4	271
Grand Traverse	18	865	2,011	0	1,885	1,009	2,894	23	1,306
Gratiot	16	386	1,195	0	929	668	1,597	20	582
Hillsdale	11	437	1,167	0	1,007	608	1,615	12	692
Houghton	6	260	1,152	0	564	854	1,418	6	362
Huron	11	274	841	0	543	583	1,126	13	413
Ingham	20	2,998	8,582	1,349	6,792	3,459	11,600	21	4,334
Ionia	19	542	1,756	203	1,470	644	2,317	22	824
Iosco	10	292	853	0	603	552	1,155	12	471
Iron	1	100	449	0	270	280	550	1	128
Isabella	6	497	1,354	0	1,184	673	1,857	7	762
Jackson	29	1,824	4,720	1,169	4,210	1,194	6,573	32	2,648
Kalamazoo	45	2,392	7,372	936	7,135	1,738	9,809	49	3,446
Kalkaska	3	136	341	0	256	224	480	3	211
Kent	56	5,363	17,091	1,033	16,168	5,309	22,510	64	7,694
Keweenaw	0	24	62	0	29	57	86	0	27
Lake	6	101	285	0	222	170	392	7	173
Lapeer	19	715	1,670	0	1,442	962	2,404	22	1,071
Leelanau	2	131	344	0	230	247	477	2	190
Lenawee	22	1,005	2,595	0	2,006	1,616	3,622	24	1,465
Livingston	24	954	2,240	512	2,100	606	3,218	27	1,435
Luce	4	67	194	0	135	130	265	4	107
Mackinac	1	132	423	47	164	345	556	1	207
Macomb	82	8,289	14,980	1,168	14,826	7,357	23,351	89	12,575

TABLE XVII-14. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1979 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Manistee	4	258	763	0	621	404	1,025	4	365
Marquette	18	750	2,356	0	2,011	1,113	3,124	22	1,098
Mason	5	292	992	0	793	496	1,289	6	415
Mecosta	8	376	1,488	0	1,022	850	1,872	11	566
Menominee	3	278	964	0	708	537	1,245	4	381
Midland	16	787	2,044	0	2,100	747	2,847	17	1,223
Missaukee	3	82	254	0	173	166	339	4	122
Monroe	32	1,440	2,713	339	2,467	1,379	4,185	34	2,190
Montcalm	12	491	1,588	0	1,081	1,010	2,091	12	739
Montmorency	4	83	251	0	188	150	338	4	149
Muskegon	28	1,951	4,751	525	4,791	1,414	6,730	30	2,877
Newaygo	9	380	942	0	839	492	1,331	9	575
Oakland	152	13,298	26,878	3,069	28,042	9,217	40,328	165	19,832
Oceana	6	216	488	0	493	217	710	7	332
Ogemaw	6	198	637	170	458	213	841	7	304
Ontonagon	5	84	226	0	116	199	315	5	125
Osceola	4	182	736	0	468	454	922	4	291
Oscoda	5	85	288	0	191	187	378	10	125
Otsego	2	187	487	87	409	180	676	2	277
Ottawa	33	1,431	3,935	249	3,674	1,476	5,399	35	2,132
Presque Isle	5	121	385	0	249	262	511	5	164
Roscommon	8	178	555	59	295	387	741	8	267
Saginaw	47	3,091	7,175	519	6,433	3,361	10,313	54	4,681
St. Clair	33	1,262	3,740	159	2,848	2,028	5,035	36	1,918
St. Joseph	14	506	1,508	0	1,018	1,010	2,028	14	798

TABLE XVII-14. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSON KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1979 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Sanilac	8	321	895	0	633	591	1,224	9	492
Schoolcraft	4	82	255	0	132	209	341	5	120
Shiawassee	17	716	1,398	187	1,213	731	2,131	21	1,064
Tuscola	17	543	1,265	0	1,090	735	1,825	19	860
Van Buren	23	678	1,447	302	1,321	525	2,148	26	1,035
Washtenaw	53	2,882	6,322	1,091	5,819	2,347	9,257	58	4,183
Wayne	315	30,446	62,152	7,226	66,020	19,667	92,913	337	46,146
Wexford	10	368	860	0	496	742	1,238	12	544
TOTAL	1,662	108,569	256,204	24,737	239,783	101,915	366,435	1,849	162,571

SOURCE: Michigan Department of State Police, special release.
pp. 46-47.

TABLE XVII-15. NUMBER OF AIRCRAFT LANDING FACILITIES, ACTIVE PILOTS, AND ACTIVE CIVIL AIRCRAFT IN MICHIGAN: 1 JANUARY 1959-1979

Year	Aircraft landing facilities[a]	Active pilots[b]	Active civil aircraft		
			Air carrier	General aviation	
				Multiengine	All other
1959	187	13,528	4	229	2,600
1960	197	13,272	13	249	2,466
1961	215	12,576	12	295	2,662
1962	216	12,664	25	347	2,785
1963	226	13,030	23	374	2,896
1964	226	13,535	27	421	2,983
1965	235	15,235	34	438	3,047
1966	241	16,830	39	445	3,260
1967	242	19,338	45	550	3,614
1968	251	21,459	53	611	3,983
1969	278	24,214	44	688	4,245
1970	302	25,706	38	721	4,597
1971	305	25,836	--	--	5,526[c]
1972	376	26,152	--	--	5,511[c]
1973	383	26,585	--	--	n.a.
1974	401	24,409	--	--	6,101[c]
1975	403	24,562	--	--	6,216[c]
1976	400	23,822	--	--	6,254[c]
1977	421	n.a.	--	--	n.a.
1978	413	25,317	--	--	7,494[c]
1979	418	25,631	--	--	6,818[c]

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1959 through 1977 (Washington, D.C.: annually), Tables 3.5 7.12, and 8.6 (1979).

a. Civil and military airports and airfields including seaplane bases and heliports. Only those military airports are included which have joint civil use.

b. Represents active pilot certificates held.

c. Total active civil aircraft.

n.a.: not available.

TABLE XVII-16. NUMBER OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES, BY LENGTH OF LONGEST RUNWAY: 1 JANUARY 1966 AND 1978 AND 31 DECEMBER 1978

Item	Length of longest runway, in feet					Total
	Under 3,000	3,000 to 3,999	4,000 to 5,999	6,000 to 9,999	10,000 and over	
1 January 1966						
Michigan	128	70	29	6	8	241
United States	5,920	1,686	1,281	405	250	9,542
1 January 1978						
Michigan	277	80	36	16	4	413
United States	8,940	2,503	1,773	641	260	14,117
31 December 1978						
Michigan	279	82	35	18	4	418
United States	9,240	2,565	1,818	638	264	14,525

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966 and 1978 (Washington, D.C.: annually), Table 3.4 (1978).
a. Excludes Puerto Rico, Virgin Islands, N. Mariana Isles, and South Pacific.

TABLE XVII-17. SELECTED CHARACTERISTICS OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES: 1 JANUARY 1966 AND 1978 AND 31 DECEMBER 1978

Item	1 January 1966		1 January 1978		31 December 1978	
	Michigan	United States	Michigan	United States	Michigan	United States[a]
Type of facility						
Airport	234	8,780	390[b]	11,713[b]	392	12,006
Heliport	0	400	15[b]	1,891[b]	16	1,986
Seaplane base	7	362	8	513	8	536
Ownership						
Public	115	3,554	133	4,708	134	4,720
Private	126	5,988	280	9,409	284	9,805
Surface and lighting						
Paved						
Lighted	74	1,965	113	3,564	117	3,628
Not lighted	7	764	19	1,749	20	1,823
Unpaved						
Lighted	27	901	43	919	44	921
Not lighted	133	5,912	238	7,885	237	8,153

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966 and 1978 (Washington, D.C.: annually), Tables 3.2 and 3.3 (1978).
a. Excludes Puerto Rico, Virgin Islands, N. Mariana Isles, and South Pacific.
b. Includes short take-off and landing ports.

TABLE XVII-18. NUMBER OF AIRCRAFT DEPARTURES, ENPLANED REVENUE PASSENGERS, AND ENPLANED REVENUE TONS OF CARGO AND MAIL, BY CERTIFIED ROUTE AIR CARRIERS FROM AIRPORTS IN MICHIGAN: FOR 12 MONTHS ENDED 31 DECEMBER 1978

Airport	Aircraft departures[a]	Enplaned passengers[b]	Enplaned revenue tons[c]		
			Freight	Express	Mail
Alpena	872	12,727	31.65	0	3.89
Benton Harbor-St. Joseph	1,738	35,144	180.70	3.16	1.14
Detroit City	1,508	36,993	0	0	0
Detroit Metro	79,731	4,842,441	126,646.48	1,206.95	22,586.06
Escanaba	1,830	17,854	31.47	0	6.93
Flint	4,861	140,378	170.69	14.50	226.61
Grand Rapids	12,409	421,734	1,847.94	79.02	969.25
Hancock-Houghton	1,067	26,553	161.77	0	12.66
Iron Mountain-Kingsfiel	2,134	22,397	199.76	0	13.10
Ironwood-Ashland	1,385	10,127	6.76	0	1.08
Jackson	1,612	10,244	31.99	0	15.47
Kalamazoo-Battle Creek	5,014	136,746	350.70	.50	232.62
Lansing	8,170	223,243	449.08	25.03	556.91
Manistee-Ludington	344	2,847	22.55	.20	4.35
Marinette (Wis.)-Menominee	1,751	11,252	62.16	.14	13.38
Marquette	1,096	44,155	80.59	0	18.33
Muskegon	4,042	86,043	651.19	85.87	2.62
Pellston	1,831	34,112	121.78	.17	2.82
Saginaw-Bay City-Midland	5,907	226,895	502.94	35.63	208.19
Sault Ste. Marie	701	12,281	23.13	0	20.41
Traverse City	3,239	87,313	514.70	1.19	10.40
TOTAL	141,242	6,441,479	132,088.03	1,452.36	24,904.10

SOURCE: Federal Aviation Administration, Airport Activity Statistics of Certified Route Air Carriers, 12 months ended 31 December 1978 (Washington, D.C.: 1980), Tables 6 and 7.

a. Aircraft takeoffs made at airports.

b. The number of revenue passengers boarding aircraft, including originating, stopover, and transfer passengers.

c. The number of revenue tons of freight, express, and domestic mail loaded on aircraft, including originating and transfer tons.

TABLE XVII-19. AIRCRAFT OPERATIONS AT FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS IN MICHIGAN, BY TYPE OF OPERATION AND AIRCRAFT CATEGORY: FISCAL YEAR ENDED 30 SEPTEMBER 1978

Tower and type of operation	Air carrier	Air taxi	General aviation	Military	Total
Ann Arbor Municipal					
Itinerant operations	23	393	43,815	174	44,405
Local operations	0	0	64,801	108	64,909
Total operations	23	393	108,616	282	109,314
Battle Creek					
Itinerant operations	20	9,244	26,175	4,480	39,919
Local operations	0	0	28,755	1,932	30,687
Total operations	20	9,244	54,930	6,412	70,606
Benton Harbor Ross Field					
Itinerant operations	3,515	316	21,389	107	25,327
Local operations	0	0	22,109	30	22,139
Total operations	3,515	316	34,498	137	47,466
Detroit City					
Itinerant operations	3,152	16,907	106,014	462	126,535
Local operations	0	0	63,149	47	63,196
Total operations	3,152	16,907	169,163	509	189,731
Detroit Metro Wayne Co.					
Itinerant operations	162,776	20,243	82,012	341	265,372
Local operations	0	0	0	0	0
Total operations	162,776	20,243	82,012	341	265,372
Detroit Willow Run					
Itinerant operations	9,104	33,317	59,922	523	102.866
Local operations	0	0	107,723	188	107,911
Total operations	9,104	33,317	167,645	711	210,777
Flint Bishop					
Itinerant operations	10,277	1,732	62,997	615	75,621
Local operations	0	0	101,456	1,104	102,560
Total operations	10,277	1,732	164,453	1,719	178,181
Grand Rapids					
Itinerant operations	25,513	5,239	71,108	536	102,396
Local operations	0	0	54,732	110	54,842
Total operations	25,513	5,239	125,840	646	157,238
Jackson Reynolds Municipal					
Itinerant operations	3,177	112	49,863	478	53,630
Local operations	0	0	33,378	250	33,628
Total operations	3,177	112	83,241	728	87,258
Kalamazoo					
Itinerant operations	9,844	488	59,920	276	70,528
Local operations	0	0	38,721	263	38,984
Total operations	9,844	488	98,641	539	109,512

TABLE XVII-19. AIRCRAFT OPERATIONS AT FAA-OPERATED AIRPORT TRAFFIC CONTROL TOWERS IN MICHIGAN, BY TYPE OF OPERATION AND AIRCRAFT CATEGORY: FISCAL YEAR ENDED 30 SEPTEMBER 1978 (cont.)

Tower and type of operation	Air carrier	Air taxi	General aviation	Military	Total
Lansing					
Itinerant operations	17,043	2,915	70,058	1,212	91,228
Local operations	0	0	64,800	6,079	70,879
Total operations	17,043	2,915	134,858	7,291	162,107
Muskegon					
Itinerant operations	8,248	59	35,689	881	44,877
Local operations	0	0	44,134	704	44,838
Total operations	8,248	59	79,823	1,585	89,715
Pontiac					
Itinerant operations	70	3,624	137,110	197	141,001
Local operations	0	0	141,807	8	141,815
Total operations	70	3,624	278,917	205	282,816
Saginaw Tri City					
Itinerant operations	11,767	2,583	41,132	542	56,024
Local operations	0	0	32,044	208	32,252
Total operations	11,767	2,583	73,176	750	88,276
Traverse City					
Itinerant operations	3,962	2,184	39,295	2,528	47,969
Local operations	0	0	44,768	5,016	49,784
Total operations	3,962	2,184	84,063	7,544	97,753
TOTAL					
Itinerant operations	268,491	99,356	906,499	13,352	1,287,698
Local operations	0	0	842,377	16,047	858,424
Total operations	268,491	99,356	1,748,876	29,399	2,146,122

SOURCE: Federal Aviation Administration, FAA Air Traffic Activity, Fiscal Year 1978 (Washington, D.C.: 1979), Table 4.

NOTE: FAA abbreviates Federal Aviation Agency. An aircraft operation is an arrival or departure. Local operations are performed by aircraft which (1) operate in the local traffic pattern or within sight of the tower, (2) are known to be departing for, or arriving from, flight in local practice areas located within a 20-mile radius of the control tower, or (3) execute simulated instrument approaches or low passes at the airport. All other aircraft arrivals and departures are itinerant operations.

TABLE XVII-20. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1967-1977

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Total
	Lakewise	Coastwise	Internal	Local and intraport	Canada	Overseas	
St. Mary's River							
1967	4,200,482	0	0	0	431,987	124,672	4,757,141
1968	4,230,317	0	0	0	448,175	118,606	4,797,098
1969	4,834,340	0	0	3	433,949	95,339	5,363,631
1970	4,448,581	0	0	4	391,712	107,370	4,947,667
1971	3,958,115	0	0	2	368,474	187,685	4,514,276
1972	4,123,881	0	0	4	373,351	270,072	4,767,298
1973	4,866,476	0	0	2	628,985	301,654	5,797,117
1974	4,581,604	0	0	3	426,591	136,032	5,144,230
1975	4,037,468	0	0	2	408,454	185,397	4,631,321
1976	4,138,670	0	0	3	329,790	163,517	4,631,980
1977	2,817,806	0	0	1	312,514	250,804	3,381,125
Lake Huron							
1967	18,253,796	3,714	1,030	2,844	3,607,829	1,376,435	23,245,648
1968	18,692,708	805	599	3,547	4,170,811	1,700,521	24,568,991
1969	19,650,351	4,541	0	4,059	3,680,506	1,664,949	25,004,406
1970	19,144,416	1,758	2,421	3,177	4,121,310	1,632,218	24,905,300
1971	17,096,864	28	4,573	4,797	3,307,825	2,188,299	22,602,386
1972	17,750,308	98	1,358	5,415	3,321,375	2,351,854	24,430,408
1973	20,161,720	5,206	1,004	5,120	4,155,623	2,429,105	26,757,778
1974	18,811,861	0	1,157	6,121	3,152,382	1,264,686	23,236,207
1975	16,125,686	0	1,333	4,100	3,315,051	1,372,476	20,818,646
1976	17,004,630	0	3,963	4,935	3,962,777	1,548,453	22,424,758
1977	13,135,720	0	8	4,970	3,482,484	2,131,823	18,755,125
St. Clair[a]							
1967	4,565,797	1,307	238	0	804,828	344,601	5,716,771
1968	4,648,788	272	411	179	968,280	407,519	6,025,449
1969	4,867,509	1,475	0	162	875,971	400,140	6,145,857
1970	4,769,103	618	541	3	1,037,396	390,792	6,198,453
1971	4,231,719	6	1,019	181	821,110	527,556	5,581,591
1972	4,400,660	23	165	0	810,157	582,946	5,783,951

TABLE XVII-20. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1967-1977 (cont.)

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Total
	Lakewise	Coastwise	Internal	Local and intraport	Canada	Overseas	
St. Clair[a] (cont.)							
1973	4,908,975	1,790	353	0	1,017,375	594,722	6,523,215
1974	4,485,771	0	407	288	723,164	308,421	5,518,051
1975	3,817,879	0	308	0	771,777	336,978	4,926,942
1976	3,953,856	0	665	0	863,660	376,761	5,194,942
1977	2,986,684	0	0	0	822,731	519,520	4,328,935
Detroit River							
1967	2,468,608	2,387	1,925	232	487,730	230,928	3,191,810
1968	2,515,505	1,887	2,088	181	519,844	279,639	3,319,144
1969	2,600,147	2,465	1,346	294	474,135	265,840	3,344,227
1970	2,522,569	1,841	1,451	890	619,962	268,013	3,414,726
1971	2,217,948	1,059	1,388	1,232	506,905	350,251	3,078,783
1972	2,314,157	1,339	1,222	2,315	518,873	368,230	3,206,136
1973	2,553,050	2,455	408	943	635,793	378,045	3,570,694
1974	2,284,291	1,194	273	1,735	454,449	210,510	2,952,452
1975	1,950,195	1,112	268	988	498,614	221,029	2,672,206
1976	2,024,737	1,600	402	794	519,801	253,521	2,800,855
1977	1,529,176	1,159	34	779	520,875	338,756	2,390,779
Lake Michigan[b]							
1967	14,924,656	2,506	451,934	75,914	3,142,407	1,265,424	19,862,841
1968	14,194,189	2,714	457,119	72,012	3,361,606	1,674,292	19,761,932
1969	15,565,167	2,812	453,322	77,659	2,595,304	1,673,105	20,367,369
1970	15,430,216	1,521	478,793	74,086	2,449,974	1,610,188	20,044,778
1971	13,860,292	1,718	478,677	84,798	2,534,725	1,981,460	18,941,670
1972	14,470,995	1,786	511,197	87,770	2,658,503	1,819,762	19,550,013
1973	15,887,795	2,723	515,078	95,598	2,797,246	1,751,422	21,049,862
1974	16,105,023	2,419	580,506	90,386	2,248,124	1,004,624	20,031,082
1975	14,366,790	913	555,173	72,047	2,193,957	909,835	18,098,715
1976	14,490,026	1,200	460,620	65,835	3,075,673	1,265,525	19,358,885
1977	11,270,889	1,057	421,172	57,984	2,775,846	1,628,324	16,155,272

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1967 through 1977 (Vicksburg, Mississippi: annually), p. x, Table 1 (1977).

a. Includes St. Clair River and channels in Lake St. Clair.
b. Includes the port of Chicago.

TABLE XVII-21. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1971-1977

(In thousands of tons)

Port or waterway	1971	1972	1973	1974	1975	1976	1977
Alabaster	513.0	591.2	659.0	409.2	n.a.	561.0	621.7
Alpena Harbor	3,637.7	3,380.4	2,853.9	3,082.3	2,855.6	2,835.5	3,004.9
Calcite	12,321.4	12,805.8	14,985.1	14,767.4	11,645.9	11,313.5	11,985.2
Charlevoix	195.0	185.5	167.6	157.4	133.1	124.2	42.5
Cheboygan	135.2	114.9	136.0	117.2	78.9	158.0	158.9
Detroit River	115,742.0	118,991.1	131,676.4	110,515.9	100,419.3	104,551.8	91,576.9
Port of Detroit	30,051.9	29,913.1	31,541.6	27,541.2	26,487.9	26,407.9	25,092.8
Detroit Harbor	12,755.9	11,939.0	13,266.5	11,230.0	11,103.2	10,371.6	7,856.8
Rouge River	12,744.0	11,985.1	13,057.7	12,738.1	10,900.7	11,061.9	12,055.8
Ecorse	822.6	737.7	711.8	647.5	715.4	635.6	902.0
Wyandotte	1,850.7	1,593.6	1,865.4	1,632.7	1,497.9	1,584.3	1,442.2
Trenton	3,012.8	3,060.7	3,230.2	3,496.5	3,120.6	3,059.8	3,131.0
Escanaba	9,381.8	10,954.2	10,250.2	9,685.7	10,876.3	11,934.4	9,506.1
Frankfort Harbor	1,563.4	1,353.1	1,176.5	801.6	644.7	433.1	365.6
Gladstone	320.8	292.0	356.9	230.9	194.1	261.9	232.7
Grand Haven Harbor and Grand River	3,134.1	2,977.1	2,504.5	2,215.9	1,138.1	830.9	499.5
Grays Reef Passage	7,588.9	6,808.4	7,887.6	5,741.1	5,467.9	5,899.4	5,378.7
Holland	276.9	261.7	448.3	368.9	338.1	338.7	377.1
Harbor Beach	124.4	233.9	201.3	237.4	283.0	296.5	268.3
Keweenaw Waterway	330.6	273.6	229.4	290.3	258.2	236.4	264.2
Ludington Harbor	4,258.4	3,368.0	2,541.7	2,178.8	2,123.5	2,338.8	2,448.9
Manistee Harbor	503.7	522.7	569.3	506.8	220.0	182.5	181.4
Marquette Harbor	835.4	849.2	773.5	1,036.1	1,233.3	572.3	394.3
Menominee Harbor and River[a]	279.4	152.5	185.8	152.4	118.1	105.1	124.2
Monroe Harbor	31.1	30.2	37.4	215.6	1,184.7	972.9	1,321.3
Muskegon Harbor	3,541.9	2,835.8	2,922.7	2,508.1	1,945.3	2,270.8	1,912.4
Petoskey Penn Dixie Harbor	524.0	473.1	534.7	501.5	469.0	430.8	485.5

TABLE XVII-21. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1971-1977 (cont.)

(In thousands of tons)

Port or waterway	1971	1972	1973	1974	1975	1976	1977
Port Dolomite	2,708.6	3,263.7	3,711.1	4,437.0	3,608.5	3,457.4	3,798.6
Port Gypsum	339.2	341.9	404.8	273.0	382.1	473.9	500.1
Port Inland	4,519.3	4,199.0	4,367.6	4,324.1	3,248.5	3,361.5	3,469.7
Presque Isle Harbor	3,549.3	3,450.1	3,740.7	3,118.4	3,847.0	6,840.6	5,215.3
Saginaw River	4,847.1	4,386.3	4,096.0	4,180.1	2,705.3	3,072.5	3,656.2
St. Clair River	102,892.1	106,464.6	118,909.8	101,445.4	91,711.3	96,360.2	82,750.5
Port Huron	886.7	857.2	364.3	308.1	213.6	244.6	325.9
Marysville	678.5	633.7	606.6	577.7	559.7	516.7	575.9
St. Clair	3,995.0	3,950.5	3,338.1	3,075.1	2,686.5	3,355.1	4,585.1
Marine City	113.8	159.5	252.7	232.5	145.7	187.5	250.9
Algonac	4.1	15.0	0	11.3	18.3	0	7.2
Channels in Lake St. Clair	101,864.1	105,330.0	117,817.6	99,318.3	88,954.4	92,441.3	77,647.2
St. Joseph Harbor	626.9	475.1	465.4	433.1	245.0	295.1	308.4
St. Mary's River	75,949.6	80,217.2	97,597.3	86,801.4	78,153.5	78,930.7	58,322.0
St. Mary's Falls Canal	73,176.6	77,610.3	94,071.8	83,302.7	75,225.5	76,739.5	56,302.0
Sault Ste. Marie	116.6	97.3	109.7	87.5	86.2	95.6	69.9
Lime Island	86.8	85.5	63.0	37.8	56.4	84.4	59.8
Drummond Island	2,045.1	1,784.1	2,732.8	2,909.6	2,341.1	2,511.4	2,131.6
Detour and vicinity	21.4	209.4	221.8	204.5	78.9	14.4	.1
Stoneport	7,049.1	7,707.5	8,673.1	9,859.2	8,533.2	9,766.0	7,991.6
Traverse City Harbor	308.5	446.2	422.4	405.2	364.8	398.3	430.7

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1971 through 1977 (Vicksburg, Mississippi: annually), pp. 4-64 (1977).

NOTE: Only waterways which had more than 100,000 tons of traffic in 1974 are listed.

a. Michigan dnd Wisconsin.

n.a.: not available.

TABLE XVII-22. NUMBER OF REVENUE VEHICLES REPORTED BY THE DETROIT & CANADA TUNNEL CORPORATION, DETROIT INTERNATIONAL BRIDGE COMPANY, MACKINAC BRIDGE AUTHORITY, AND INTERNATIONAL BRIDGE AUTHORITY: 1969-1979

Year	Detroit & Canada Tunnel Corporation	Detroit International Bridge Company	Mackinac Bridge Authority	International Bridge Authority
1969	5,921,565	4,204,805	1,836,383	743,076
1970	5,926,789	4,216,764	1,947,862	759,999
1971	5,863,013	4,408,012	2,090,492	780,222
1972	5,681,152	4,616,461	2,174,664	824,878
1973	5,523,499	4,964,444	2,254,439	868,479
1974	5,405,642	4,973,016	2,138,298	865,814
1975	5,202,331	4,980,587	2,285,784	936,890
1976	5,056,690	5,022,711	2,391,211	957,622
1977	4,968,398	5,238,646	2,460,293	1,059,595
1978	5,392,341	4,956,585	2,539,620	1,118,930
1979	5,250,899	5,348,952	2,293,446	1,076,327

SOURCE: Detroit & Canada Tunnel Corporation, special release; Detroit International Bridge Compoany, special release; Mackinac Bridge Authority, special release; and International Bridge Auhority.

NOTE: The International Bridge Authority links Michigan and Canada at Sault Ste. Marie. Traffic data for the Blue Water Bridge, located at Port Huron and Sarnia, are not available.

XVIII. COMMUNICATIONS

The Federal Communications Commission is the leading source of information in the field. Its publication Statistics of Communications Common Carriers gives much detailed information about telephones, radio, and television in the nation and in various states.

The Broadcasting Yearbook of Broadcasting Publications, Inc., lists a considerable amount of information relating to radio and television stations. This volume includes information by states: the facility involved, advertising rates charged, trading area covered, and so forth. Further information concerning Michigan newspapers is available in the Michigan Newspaper Directory and Rate Book of the Michigan Press Association.

Data on plant and customers of each telephone company are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating telephone companies and other public utilities.

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TABLE XVIII-1. NUMBER AND CIRCULATION OF DAILY AND SUNDAY NEWSPAPERS IN MICHIGAN: 1963-1974 AND 1976-1978

(Circulation figures in thousands)

	Daily newspapers						Sunday newspapers	
	Number			Net paid circulation[a]				Net paid
Year	Morning	Evening	Total	Morning	Evening	Total	Number	circulation[a]
1963	1	52	53	512	1,773	2,285	11	2,015
1964	1	52	53	521	1,862	2,384	11	2,081
1965	1	52	53	509	1,844	2,353	11	2,040
1966	1	53	54	537	1,873	2,410	11	2,093
1967	1	53	54	591	1,902	2,492	11	2,167
1968	1	53	54	530	1,905	2,435	12	2,085
1969	1	54	55	562	1,853	2,415	12	2,080
1970	2	54	56	610	1,902	2,512	13	2,189
1971	1	54	55	574	1,872	2,447	13	2,187
1972	1	54	55	599	1,911	2,510	14	2,245
1973	1	54	55	613	1,957	2,569	14	2,276
1974	1	54	55	628	1,899	2,527	14	2,269
1976	1	52	53	621	1,832	2,453	14	2,225
1977	2	50	52	629	1,828	2,457	14	2,237
1978	2	50	52	627	1,831	2,458	17	2,366

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1962 through 1978 (Washington, D.C.: annually), Table 991 (1979).
a. As of 1 October. Figures for 1975 not available.

TABLE XVIII-2. NUMBER OF COMMERCIAL BROADCAST STATIONS IN MICHIGAN: 1 JANUARY 1963-1974 AND 1976-1978

Year	AM	FM	TV	Total
1963	110	41	16	167
1964	114	47	16	177
1965	115	51	16	182
1966	116	58	17	191
1967	121	61	17	199
1968	122	67	18	207
1969	124	72	19	215
1970	124	76	20	220
1971	125	78	20	223
1972	125	84	22	231
1973	126	87	21	234
1974	124	92	21	237
1976	128	107	24	259
1977	127	116	24	267
1978	127	109	24	260

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1963 through 1979 (Washington, D.C.: annually), Table 979 (1979).

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1979

County	City	Name[a]	Circulation[b]	
			Daily	Sunday
Alpena	Alpena	Alpena News	12,852	--
Bay	Bay City	Bay City Times	39,555	43,081
Berrien	Benton Harbor	The Herald-Palladium	35,755	--
	Niles	The Daily Star	75,000	--
Branch	Coldwater	Daily Reporter	8,882	--
Calhoun	Albion	Albion Evening Recorder	4,143	--
	Battle Creek	Battle Creek Enquirer & News	63,508	40,960
	Marshall	Marshall Evening Chronicle	2,644	--
Cass	Dowagiac	Dowagiac Daily News	75,000	--
Cheboygan	Cheboygan	Cheboygan Daily Tribune	4,388	--
Chippewa	Sault Ste. Marie	The Evening News	8,310	--
Delta	Escanaba	Escanaba Daily Press	19,850	16,204
Dickinson	Iron Mountain	Iron Mountain News	9,786	14,107
Emmet	Petoskey	Petoskey News-Review	28,269	--
Genesee	Flint	Flint Journal	105,830	105,104
Gogebic	Ironwood	The Ironwood Daily Globe	10,299	--
Grand Traverse	Traverse City	Traverse City Record-Eagle	21,727	--
Hillsdale	Hillsdale	Hillsdale Daily News	8,774	--
Houghton	Houghton	Daily Mining Gazette	11,913	--
Huron	Bad Axe	Huron Daily Tribune	9,265	--
Ingham	Lansing	The State Journal	76,329	82,425
Ionia	Ionia	Ionia Daily Sentinel-Standard	4,661	--
Isabella	Mt. Pleasant	The Morning Sun	9,800	--
Jackson	Jackson	Jackson Citizen Patriot	37,581	41,146
Kalamazoo	Kalamazoo	Kalamazoo Gazette	101,302	65,183
Kent	Grand Rapids	The Grand Rapids Press	124,113	137,093
Lenawee	Adrian	The Daily Telegram	24,058	--
Macomb	Mt. Clemens	The Macomb Daily	107,286	--
Manistee	Manistee	Manistee News-Advocate	29,432	--
Marquette	Marquette	The Mining Journal	22,225	30,345
Mason	Ludington	Ludington Daily News	8,489	--
Mecosta	Big Rapids	The Pioneer	32,577	--
Menominee	Menominee	The Herald-Leader	25,650	--

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b] Daily	Sunday
Midland	Midland	Midland Daily News	17,170	--
Monroe	Monroe	Monroe Evening News	26,655	--
Montcalm	Greenville	The Daily News	17,332	--
Muskegon	Muskegon	The Muskegon Chronicle	44,143	46,589
Oakland	Pontiac	The Oakland Press	72,931	71,645
	Royal Oak	The Daily Tribune	51,173	--
Ottawa	Grand Haven	Grand Haven Tribune	9,351	--
	Holland	Holland Sentinel	28,598	--
Saginaw	Saginaw	Saginaw News	53,065	55,037
St. Clair	Port Huron	The Times Herald	31,300	34,724
St. Joseph	Sturgis	Sturgis Journal	21,837	--
	Three Rivers	Three Rivers Commercial	5,142	--
Shiawassee	Owosso	The Argus-Press	14,981	--
Van Buren	South Haven	South Haven Daily Tribune	3,586	--
Washtenaw	Ann Arbor	Ann Arbor News	42,280	46,130
	Ypsilanti	The Press	29,359	15,896
Wayne	Detroit	Detroit Free Press	610,849	705,398
	Detroit	Detroit Legal News	2,308	--
	Detroit	Detroit News	630,795	828,052
Wexford	Cadillac	Cadillac Evening News	22,810	--

SOURCE: Michigan Press Association, Michigan Newspaper Directory and Rate Book, 1980 (Lansing: 1980), pp. 48-61.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and publishers figures.

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979

County	City	Name[a]	Circulation[b]
Alcona	Harrisville	Alcona County Review	1,799
	Lincoln	Alcona Co. Herald	2,350
Alger	Munising	Munising News	3,100
Allegan	Allegan	Allegan County News-Gazette	6,712
	Fennville	Fennville Herald	1,368
	Plainwell	The Union-Enterprise	3,459
	Saugatuck	The Commercial Record	2,014
	Wayland	Wayland Globe	13,533
Antrim	Bellaire	Antrim Co. News	17,580
	Central Lake	The Torch	2,031
	Elk Rapids	Elk Rapids Progress	522
	Elk Rapids	Elk Rapids Town Meeting	1,041
Arenac	Standish	Arenac C. Independent	5,102
Baraga	L'Anse	L'Anse Sentinel	7,042
Barry	Freeport	Freeport News	688
	Hastings	Hastings Banner	3,885
	Middleville	Middleville Sun & Caledonia News	1,844
	Nashville	Maple Valley News	3,000
Bay	Bay City	Bay City Democrat & Bay County Legal News	1,161
	Bay City	Bay City Valley Tribune	2,355
	Pinconning	Pinconning Journal	1,620
Benzie	Frankfort	Benzie Co. Record Patriot	27,369
Berrien	Bridgman	The Community Enterprise	1,517
	Buchanan	Berrien County Record	7,750
	New Buffalo	New Buffalo Times	3,465
	Three Oaks	Galien River Gazette	7,900
	Watervliet	Watervliet Record	2,129
Branch	Bronson	Bronson Journal	1,976
	Union City	The Register-Tribune	1,027
Calhoun	Homer	Homer Index	800
Cass	Cassopolis	Cassopolis Vigilant	75,000
	Edwardsburg	Edwardsburg Argus	75,000
	Marcellus	Marcellus News	1,455
Charlevoix	Boyne City	Charlevoix Co. Press	3,200
	Charlevoix	Charlevoix Courier	21,071
Cheboygan	Cheboygan	Cheboygan Observer	714
	Indian River	Straitsland Resorter	2,326
Clare	Clare	Clare Sentinel	3,455
	Harrison	Clare County Cleaver	3,278
Clinton	Ovid	Maple River News	6,200
	St. Johns	Clinton County News	12,606
Crawford	Grayling	Crawford County Avalanche	3,783
Delta	Gladstone	The Delta Reporter	5,400
Eaton	Bellevue	Bellevue Gazette	600
	Charlotte	Charlotte Republican-Tribune	4,781
	Eaton Rapids	Eaton Rapids Journal	7,000
	Grand Ledge	Grand Ledge Independent	3,182
	Olivet	The Olivet Optic	739
	Sunfield	Sunfield Sentinel	1,193

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b]
Emmet	Harbor Springs	The Harbor Light	1,545
Genesee	Clio	Clio Messenger	3,099
	Davison	Davison Index	9,800
	Fenton	Fenton Independent	64,142
	Fenton	Tri-County News	50,416
	Flint	Flint-Genesee County Legal News	1,110
	Flint	The Suburban News	64,142
	Flushing	Flushing Observer	64,142
	Grand Blanc	Grand Blanc Evening News	64,142
	Mt. Morris	Genesee Co. Herald	1,825
	Swartz Creek	Swartz Creek News	64,142
Gladwin	Gladwin	Gladwin County Record & Beaverton Clarion	6,132
Gogebic	Wakefield	Wakefield News	1,309
Gratiot	Ithaca	Gratiot County Herald	6,081
Hillsdale	Camden	The Farmer's Advance	24,741
	Jonesville	Jonesville Independent	930
Houghton	Calumet	Copper Island Sentinel	7,042
Huron	Harbor Beach	Harbor Beach Times	3,163
	Pigeon	The Progress Advance	2,369
	Port Austin	The Huron News	552
	Sebewaing	Sebewaing Blade-Crescent	3,262
Ingham	East Lansing	Towne Courier	32,000
	Leslie	Leslie Local Independent	6,375
	Mason	Ingham County News	21,350
	Stockbridge	The Town Crier	7,277
	Williamston	The Enterprise	32,000
Ionia	Clarksville	Clarksville Record	600
	Lake Odessa	Lake Odessa Wave	1,994
	Portland	Review & Observer	1,462
Iosco	Oscoda	Oscoda Press	11,775
	Tawas City-East Tawas	Iosco County News	11,775
	Tawas City	Tawas Herald	3,737
Iron	Crystal Falls	Diamond Drill	2,893
	Iron River	Iron River Reporter	4,700
Isabella	Shepherd	The Shepherd Argus	21,742
Jackson	Brooklyn	The Exponent	8,450
	Concord	Concord News	288
	Grass Lake	Grass Lake Public Sentiment	1,014
	Hanover	Hanover-Horton Local	456
	Jackson	The Blazer	6,000
	Parma	Parma News	584
	Springport	Springport Signal	1,600
Kalamazoo	Climax	Climax Crescent	735
	Galesburg	The Argus	1,218
	Portage	Herald-Headliner	13,000
	Richland	Richland Journal	1,218
	Vicksburg	Vicksburg Commercial-Express	2,246

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b]
Kalkaska	Kalkaska	Leader & Kalkaskian	13,558
Kent	Cedar Springs	Cedar Springs Clipper	5,462
	East Grand Rapids	Cadence	5,200
	Lowell	The Grand Valley Ledger	2,650
	Rockford	Rockford Register	5,462
	Sparta	North Kent Leader	16,000
	Wyoming	The Southkent News-Wyoming Advocate	2,033
Lake	Baldwin	Lake County Star	32,577
Lapeer	Almont	Almont Times Herald	8,705
	Almont-Imlay City	Advisor Newspapers	82,000
	Imlay City	Tri-City Times	8,705
	Lapeer	Lapeer County Press	21,036
Leelanau	Leland	Leelanau Enterprise	5,021
Lenawee	Blissfield	Blissfield Advance	2,421
	Clinton	Clinton Local	1,565
	Hudson	Hudson Post-Gazette	2,075
	Morenci	Morenci Observer	4,470
	Tecumseh	Tecumseh Herald	4,600
Livingston	Brighton	The Brighton Argus	45,000
	Fowlerville	The Fowlerville Review	45,754
	Howell	Livingston County Press	45,754
	Pickney	Pickney Post	45,754
Luce	Newberry	Newberry News	2,865
Mackinac	Cedarville	The Weekly Wave	5,900
	St. Ignace	St. Ignace News	5,900
Macomb	Armada	Armada Times	1,449
	Madison Heights	Reporter	40,500
	New Baltimore	Anchor Bay Beacon	5,490
	Richmond	The Review	19,660
	Romeo	Romeo Observer	10,491
	St. Clair Shores	St. Clair Shores-Roseville-East Detroit Comm News	112,425
	Sterling Heights	Sterling Heights-Utica-Shelby Community News	112,425
	Sterling Heights	Sterling Heights-Utica-Shelby Advisor	82,000
	Warren	Warren-Centerline Comm News	112,425
	Warren	Warren Sterling Reporter	40,500
Manistee	Bear Lake	The Manistee County Pioneer-Press	1,780
Mecosta	Barryton	Chippewa Hills Courier	32,577
Menominee	Stephenson	Menominee County Journal	3,329
Missaukee	Lake City	Lake City Waterfront, Inc. Messenger	4,079
Monroe	Carleton	Dundee Reporter	947
	Dundee	Courier Herald	1,950
	Lambertville	Petersburg Sun	19,500
	Petersburg		1,950

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b]
Montcalm	Carson City	Carson City Gazette	2,054
	Edmore	Edmore Times	2,455
	Howard City	Howard City Record	2,492
	Lakeview	Lakeview Enterprise	3,346
Montmorency	Atlanta	Montmorency County Tribune	4,000
Muskegon	Montague	White Lake Observer	16,056
	Norton Shores	Norton Examiner	8,300
Newaygo	Fremont	Fremont Times-Indicator	7,444
	Newaygo	Newaygo County Sun	32,577
Oakland	Birmingham	Birmingham Eccentric	19,436
	Clarkston	Clarkston News	11,127
	Farmington	Farmington Observer	14,849
	Ferndale	Legal Advisor-Oakland County	1,100
	Holly	N.W. Oakland County Herald-Advertiser	1,812
	Lake Orion	Lake Orion Review	3,137
	Milford	Milford Times	4,954
	Milford	Milford-Highland Spinal Column	52,598
	Novi	Novi-Commerce Spinal Column	52,598
	Novi	Novi-Walled Lake News	45,000
	Oxford	Oxford Leader	2,828
	Pontiac	Oakland County Legal News	1,400
	Pontiac	Waterford Times	50,000
	Rochester	Rochester Clarion	7,458
	Rochester	Rochester Eccentric	8,579
	Southfield	Southfield Eccentric	16,154
	South Lyon	The Herald	45,000
	Troy	The Eccentric	8,531
	Troy	Troy-Clawson Reporter	40,500
	Union Lake	Spinal Column	52,598
	West Bloomfield	West Bloomfield Spinal Column	52,598
	West Bloomfield	The Eccentric	4,141
Oceana	Hart	Hart Journal	4,228
	New Era	The Oceana County News	16,056
	Shelby	Oceana Herald	3,149
Ogemaw	West Branch	Ogemaw County Herald	38,499
Ontonagon	Ontonagon	Ontonagon Herald	3,279
Osceola	Evart	Evart Review	3,140
	Marion	Marion Press	1,266
	Reed City	Osceola County Herald	32,577
Oscoda	Mio	Oscoda County News	2,700
Otsego	Gaylord	The Herald-Time	19,067
Ottawa	Grand Haven	Western Michigan News Review	6,152
	Zeeland	Zeeland Record	1,992

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b]
Presque Isle	Onaway	Onaway Outlook	5,767
	Rogers City	Presque Isle County Advance	5,767
Roscommon	Houghton Lake	Houghton Lake Resorter	5,619
	Roscommon	Roscommon Herald-News	37,056
Saginaw	Birch Run	Birch Run-Banner	7,750
	Bridgeport	Future Views	7,750
	Chesaning	Saginaw Valley News	7,750
	Frankenmuth	Frankenmuth News	4,100
	Merrill	Monitor Herald	7,750
	Saginaw	Saginaw Press	1,994
	Saginaw	Township Times	18,772
St. Clair	Algonac	Courier-Journal	19,660
	Capac	Capac Journal	8,705
	Marine City	St. Clair County Independent Press	19,660
	Yale	Yale Expositor	1,987
St. Joseph	Colon	The Express	962
	White Pigeon	St. Joseph County News	2,345
Sanilac	Brown City	Brown City Banner	4,443
	Carsonville	Carsonville-Pt. Sanilac Journal	1,781
	Croswell	Sanilac Jeffersonian	7,000
	Deckerville	Deckerville Recorder	1,831
	Marlette	Marlette Leader	2,241
	Minden	Minden City Herald	1,513
	Sandusky	Sandusky Republican Tribune	3,257
	Sandusky	Sanilac County News-Advisor	3,650
Schoolcraft	Manistique	Manistique Pioneer-Tribune	3,700
Shiawassee	Durand	Durand Express	2,365
	Perry	Shiawassee County Journal	9,960
Tuscola	Caro	Tuscola County Advertiser	11,729
	Cass City	Cass City Chronicle	3,454
	Mayville	Mayville Monitor	1,242
	Millington	Millington Herald-Lakeville Aerial	6,400
	Vassar	Pioneer Times	8,545
Van Buren	Bangor	Bangor Advance	5,069
	Decatur	Decatur Republican	1,800
	Gobles	Gobles News	1,114
	Paw Paw	The Courier-Leader	3,629
Washtenaw	Chelsea	Chelsea Standard	3,750
	Dexter	Dexter Leader	2,755
	Manchester	Manchester Enterprise	1,564
	Milan	The Milan Booster-Leader	2,915

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1979 (cont.)

County	City	Name[a]	Circulation[b]
Wayne	Allen Park	Allen Parker	67,125
	Belleville	Belleville Enterprise and Legal Times	45,953
	Canton Twp.	Canton Eagle	45,953
	Canton Twp.	Canton Observer	8,409
	Dearborn	Dearborn Press and Guide	35,000
	Dearborn Heights	Dearborn Heights Leader	35,000
	Ecorse	Ecorse Advertiser	17,500
	Ecorse	Ecorse Enterprise	67,125
	Flat Rock	The Guardian	12,000
	Garden City	Garden City Observer	9,619
	Grosse Ille	The Downriver News Herald	47,190
	Grosse Pointe Farms	Grosse Pointe News	15,610
	Hamtramck	The Citizen	13,817
	Inkster	Ledger Star	45,953
	Lincoln Park	Lincoln Parker	67,125
	Livonia	Livonia Observer	28,379
	Melvindale	Melvindale Messenger	67,125
	Northville	The Record	45,000
	Plymouth	The Community Crier	19,364
	Plymouth	Plymouth Observer	8,944
	Redford	Redford Observer	10,468
	River Rouge	River Rouge Herald	17,500
	Riverview	The News-Herald	47,190
	Romulus	Romulus Roman	45,953
	Southgate	Southgate Sentinel	67,125
	Taylor	Taylor Tribune	67,125
	Trenton	Trenton News-Herald	47,190
	Trenton	Trenton Times	10,125
	Wayne	Wayne Eagle	45,953
	Westland	Westland Eagle	45,953
	Westland	Westland Observer	9,365
	Woodhaven	The News-Herald	47,190
	Wyandotte	Wyandotte News Herald	47,190

SOURCE: Michigan Press Association, Michigan Newspaper Directory and Rate Book, 1980 (Lansing: 1980), pp. 65-90.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and figures supplied by publishers.

TABLE XVIII-5. MICHIGAN COLLEGE NEWSPAPERS: 1976-1977

School	Name	Frequency	Circulation
Adrian College	College World	Weekly	1,400
Albion College	Albion Pleiad	Weekly	2,000
Alma College	The Almanian	Weekly	2,000
Andrews University	Student Movement	Weekly	3,200
Aquinas College	Sunrise	Twice monthly	1,100
Bay De Noc Cmty College	Bay Beacon	Twice monthly	750
Calvin College	The Chimes	Weekly	3,600
Central Michigan University	Central Michigan Life	Thrice weekly	15,500
Davenport Coll of Business	The Oracle	Monthly	800
Delta College	Delta Collegiate	Weekly	3,500
Detroit Inst of Technology	Technonian	Monthly	1,350
Eastern Michigan University	Eastern Echo	Thrice weekly	15,000
Ferris State College	Ferris Torch	Weekly	9,000
Glen Oaks Cmty College	Voice of the Viking	Weekly	600
Grand Rapids Jr College	The Collegiate	Twice monthly	1,500
Grand Valley State College	Lanthorn	Weekly	7,000
Henry Ford Cmty College	The Ford Estate	Weekly	5,000
Hillsdale College	Collegian	Weekly	1,500
Hope College	College Anchor	Weekly	2,500
Jackson Cmty College	Phenix	Weekly	3,500
Kellogg Cmty College	Triad	Twice monthly	3 000
Lake Michigan College	Lake Michigan Journal	Weekly	,000
Lape Superior State College	The Compass	Weekly	2,200
Lansing Cmty College	Look Out	Twice monthly	6,000
Lawerence Inst of Technology	Tech News	Weekly	3,000
Macomb County Cmty College	S. Campus Journal	Weekly	3,000
Mercy College of Detroit	Dateline	Twice monthly	2,500
Michigan State University	State News	Each weekday	39,500
Michigan Tech University	Tech Lode	Weekly	4,200
Monroe County Cmty College	The Agora	Twice monthly	1,000
Mott Community College	College Clamor	Weekly	9,000
Muskegon Cmty College	Bay Window	Twice monthly	3,750
Northern Michigan University	Northwind	Weekly	6,000
Northwood Institute	Northwood Times	Twice monthly	1,200
Oakland Cmty-Highland Lk	Highland Voice	Weekly	2,500

TABLE XVIII-5. MICHIGAN COLLEGE NEWSPAPERS: 1976-1977 (cont.)

School	Name	Frequency	Circulation
Oakland Cmty Jr. College	Auburn Hills Perceiver	Twice monthly	4,000
Oakland County Cmty College	Orchard Ridge Recorder	Twice monthly	6,400
Oakland University	Oakland Sail	Weekly	5,000
Schoolcraft Jr. College	Campus Globe	Twice monthly	4,200
Spring Arbor College	Crusader	Twice monthly	900
University of Detroit	Varsity News	Twice weekly	6,500
University of Michigan Ann Arbor	Michigan Daily	Tuesday-Saturday	7,500
University of Michigan Ann Arbor-Business School	The Monroe Street Jnl	Twice monthly	1,000
University of Michigan Dearborn	Michigan Journal	Twice monthly	2,600
University of Michigan Flint	University News	Twice monthly	2,000
Washtenaw Cmty College	Voice	Twice monthly	3,000
Wayne County Cmty College	The Open Door	Monthly	17,000
Wayne State University	The South End	Each weekday	15,000
Western Michigan University	Western Herald	Thrice weekly	15,000

SOURCE: CASS Student Advertising, Inc., National Rate Book and College Newspaper Directory, 1976-77 (Chicago, Ill.: 1976), pp. 80-85.

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Adrian				
WABJ	1946	1490 kHz	24 hr.	(a)
WQTE (FM)	1976	95.3 MHz (S)	n.a	3,000
WLEN (FM)	1965	103.9 MHz	24 hr.	3,000
*WVAC (FM)	1967	88.1 MHz		10
Albion				
WALM	1952	1260 kHz	5:30am-12	(b)
WUFN (FM)	1971	96.7 MHz	n.a.	1,200
Allendale				
*WSRX (FM)	1974	88.5 MHz	n.a.	10
Alma				
WFYC	1948	1280 kHz	6am-LSS	1,000
WFYC-FM	1965	104.9 MHz	6am-11:15pm (Sat.-Sun.)	3,000
Alpena				
WATZ	1946	1450 kHz	6am-11:15pm	(a)
WATZ-FM	1967	93.5 MHz	6am-11:15pm	3,000
WCML-FM	1978	91.7 MHz	n.a.	
WHSB (FM)	1965	107.7 MHz	5:30am-11:30	100,000
Ann Arbor				
WAAM	1947	1600 kHz	24 hr.	5,000
*WCBN (FM)	1972	88.3 MHz (S)	n.a.	10
WIQB (FM)	1962	102.9 MHz (QS)	24 hr.	10,000
WPAG	1945	1050 kHz	6am-LSS	5,000
WPAG-FM	1969	107.1 MHz	6am-1am	3,000
*WUOM (FM)	1948	91.7 MHz	n.a.	230,000
Auburn Heights				
*WAHS (FM)	1975	89.5 MHz	n.a.	10
Bad Axe				
WLEW	1950	1340 kHz	5:30am-11:15pm	(a)
WLEW-FM	1956	92.1 MHz	5:30am-11:15pm	3,000
Battle Creek				
WBCK	1948	930 kHz	5:30-1am	(c)
WKNR	1925	1400 kHz	5am-1am	(a)
WKFR-FM	1963	103.3 MHz (S)	5am-1am	31,000
WWKQ	1963	1500 kHz	LSR-LSS	1,000
WDFP (FM)	1975	95.3 MHz (S)	5am-12m	3,000
Bay City				
WRDD	1925	1440 kHz	5am-2am	1,000
*WCHW (FM)	1973	91.3 MHz	n.a.	10
WGER (FM)	1961	102.5 MHz (S)	24 hr.	86,000
WHNN (FM)	1960	96.1 MHz	24 hr.	97,000
WXOX	1956	1250 kHz	6am-LSS	1,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Benton Harbor				
WHFB	1947	1060 kHz	LSR-LSS	5,000
WHFB (FM)	1947	99.9 MHz (S)	5:30am-1	9,200
Berrien Springs				
*WAUS (FM)	1971	90.9 MHz	n.a.	17,000
Big Rapids				
WBRN	1953	1460 kHz	6am-LSS	1,000
WBRN (FM)	1964	100.9 MHz	6am-10pm	3,000
Birmingham				
WMJC (FM)	1958	94.7 (S)	n.a.	10,000
Bloomfield Hills				
*WBFH (FM)	1976	88.1	n.a.	10
Boyne City				
WCLX (FM)	1978	93.5 MHz	n.a.	1,200
Cadillac				
WATT	1945	1240 kHz	5:15am-12:15am	(a)
WITW (FM)	1974	96.7 MHz (S)	6am-12m	1,350
WKJF (FM)	1961	92.9 MHz (S)	6am-12m	100,000
WWAM	1968	1370 kHz	6am-12m	(c)
Caro				
WKYO	1962	1360 kHz	6am-LSS	500
WIDL (FM)	1974	104.9 kHz	6am-11pm	3,000
Charlevoix				
WVOY	1974	1270 kHz	6am-LSS	5,000
Charlotte				
WCER	1956	1390 kHz	6am-LSS	5,000
WCER (FM)	1965	92.7 MHz	6am-11pm	3,000
Cheboygan				
WCBY	1954	1240 kHz	6am-11pm	1,000
WCBY (FM)	1968	105.1 MHz	n.a.	25,000
Clare				
WRNN	1960	990 kHz	LSR-LSS	250
WRNN (FM)	1967	95.3 MHz	LSR-10:30pm	3,000
Coldwater				
WTVB	1949	1590 kHz	5am-1am	(c)
WNWN (FM)	1950	98.5 MHz	5am-12m	50,000
Dearborn				
WWKR	1946	1310 kHz	24 hr.	5,000
WNIC (FM)	1950	100.3 MHz	24 hr.	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Detroit (Windsor, Ont.)				
CKLW	1932	800 kHz	24 hr.	50,000
Detroit				
WABX (FM)	1960	99.5 MHz (S)	24 hr.	36,000
WBFG (FM)	1961	98.7 MHz (S)	24 hr.	50,000
WCAR	1939	1130 kHz	24 hr.	(d)
WTWR (FM)	1964	92.3 MHz	5am-12m	40,000
WDEE	1925	1500 kHz	24 hr.	(e)
*WDET (FM)	1948	101.9 MHz	n.a.	79,000
WDRQ (FM)	1947	93.1 MHz	24 hr.	20,000
*WDTR (FM)	1948	90.9 MHz	n.a.	17,000
WGPR (FM)	1961	107.5 MHz	24 hr.	50,000
WJLB	1926	1400 kHz	24 hr.	(a)
WJR	1922	760 kHz	24 hr.	50,000
WJR (FM)	1948	96.3 MHz (S)	24 hr.	50,000
WJZZ (FM)	1960	105.9 MHz	24 hr.	34,000
WCZY (FM)	1949	95.5 MHz (S)	6am-2am	(f)
WMUZ (FM)	1959	103.5 MHz	24 hr.	115,000
WMZK (FM)	1941	97.9 MHz	24 hr.	50,000
WOMC (FM)	1948	104.3 MHz (S)	24 hr.	190,000
WQRS (FM)	1960	105.1 MHz (S)	7am-1am	50,000
WRIF (FM)	1948	101.1 MHz (S)	24 hr.	27,200
WWJ	1920	950 kHz	24 hr.	5,000
WWJ (FM)	1941	97.1 MHz (S)	24 hr.	12,000
WWWW (FM)	1960	106.7 MHz (QS)	24 hr.	61,125
WXYZ	1925	1270 kHz	24 hr.	5,000
Dowagiac				
WDOW	1960	1440 kHz	6am-LSS	1,600
WDOW (FM)	1971	97.7 MHz	6am-12pm	3,000
Drayton Plains				
*WTSD (FM)	1972	88.1 MHz (S)	n.a.	10
East Lansing				
WFMK (FM)	1959	99.1 MHz (S)	24 hr.	28,000
*WKAR	1922	870 kHz	n.a.	(g)
*WKAR (FM)	1948	90.5 MHz	n.a.	125,000
WVIC	1965	730 kHz	6am-LSS	500
WVIC (FM)	1963	94.9 MHz (S)	24 hr.	20,000
Elsie				
WOES (FM)	1978	91.3 MHz	n.a.	10
Escanaba				
WBDN	1958	600 kHz	6am-LSS	1,000
WDBC	1941	680 kHz	5:30am-12m	(h)
WKZY (FM)	1976	97.1 MHz	n.a.	89,800
WFNN (FM)	1977	104.7 MHz	n.a.	100,000
Farmington Hills				
WORB (FM)	N.O.A.	90.3 MHz	n.a.	10
Flint				
WAMM	1955	1420 kHz	6am-LSS	500
WLQB	1946	1570 kHz	6am-LSS	1,000
*WFBE (FM)	1953	95.1 MHz	n.a.	3,700

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Flint (cont.)				
WFDF	1922	910 kHz	4:45am-1am	(c)
WGMZ (FM)	1962	107.9 MHz (S)	24 hr.	50,000
WKMF	1953	1470 kHz	24 hr.	(c)
WTAC	1946	660 kHz	24 hr.	(b)
WTRX	1947	1330 kHz	24 hr.	(c)
WWCK (FM)	1964	105.5 MHz (S)	24 hr.	3,000
Fremont				
WSHN	1961	1550 kHz	6am-LSS	1,000
WSHN (FM)	1971	100.1 MHz	5:55am-11pm	3,000
Garden City				
WIID	1963	1090 kHz	6am-LSS	250
Gaylord				
WATC	1950	900 kHz	6am-LSS	1,000
WWRM (FM)	1972	106.7 MHz (S)	5:45am-12m	50,000
WPOL (FM)	N.O.A.	95.3 MHz	n.a.	1,800
Gladwin				
WJEB	1974	1350 kHz	6am-LSS	1,000
WGMN (FM)	N.O.A.	103.1 MHz	n.a.	3,000
Grand Haven				
WGHN	1956	1370 kHz	6am-LSS	500
WFMG (FM)	1969	92.1 MHz (S)	6am-12m	3,000
Grand Rapids				
*WCSG (FM)	1973	91.3 MHz (S)	n.a.	20,000
WEHB (FM)	1978	89.9 MHz	n.a.	300
WFUR	1947	1570 kHz	6am-LSS	1,000
WFUR (FM)	1960	102.9 MHz (S)	5:30am-1am	40,000
WGRD	1947	1410 kHz	6am-LSS	1,000
WGRD (FM)	1962	97.9 MHz (S)	24 hr.	19,000
WCUZ	1945	1230 kHz	4:45am-1am	(a)
WJFM (FM)	1954	93.7 MHz	6am-3am	500,000
WLAV	1940	1340 kHz	24 hr.	(a)
WLAV (FM)	1947	96.9 MHz (S)	24 hr.	28,000
WMAX	1954	1480 kHz	6am-LSS	5,000
WOOD	1924	1300 kHz	5am-1am	5,000
WOOD (FM)	1962	105.7 MHz (S)	24 hr.	265,000
*WVGR (FM)	1961	104.1 MHz[i]	n.a.	107,500
WFFX (FM)	1965	101.3 MHz (S)	24 hr.	50,000
WZZR (FM)	1962	95.7 MHz (S)	24 hr.	50,000
Grayling				
WGRY	1970	1590 kHz	6am-LSS	1,000
WOON	1978	100.1 MHz	n.a.	3,000
Greenville				
WPLB	1960	1380 kHz	5am-12m	(b)
WPLB (FM)	1962	107.3 MHz (S)	7:30am-12m	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Hancock				
WMPL	1957	920 kHz	6an-LSS	1,000
WMPL (FM)	1966	93.5 MHz	6am-12m	3,000
Harrison				
WKKM	1975	92.1 MHz	6am-10pm	3,000
Hastings				
WBCH	1957	1220 kHz	6am-LSS	250
WBCH (FM)	1968	100.1 MHz	6am-11pm	1,550
Highland Park				
*WHPR (FM)	1954	88.1 MHz	n.a.	10
Hillsdale				
WCSR	1955	1340 kHz	6am-12m	(j)
Holland				
WHTC	1948	1450 kHz	5am-12m	(a)
WHTC (FM)	1963	96.1 MHz (S)	3pm-10:1[illegible]pm	41,000
WJBL	1956	1260 kHz	6am-LSS	5,000
WJBL (FM)	1961	94.5 MHz (S)	6am-12m	10,000
Houghton				
*WGGL (FM)	1968	91.1 MHz (S)	n.a.	100,000
WHDF	1929	1400 kHz	6am-10:30pm	(a)
Houghton Lake				
WHGR	1954	1290 kHz	6am-12m	5,000
WJGS (FM)	1961	98.5 MHz (S)	6am-12m	100,000
Howell				
WHMI	1957	1350 kHz	6am-LSS	500
WHMI (FM)	1977	93.5 MHz	n.a.	3,000
Inkster				
WCHB	1956	1440 kHz	24 hr.	(b)
Interlochen				
*WIAA (FM)	1963	88.3 MHz	n.a.	115,000
Ionia				
WION	1953	1430 kHz	6am-LSS	5,000
Iron Mountain				
WMIQ	1947	1450 kHz	6am-11pm	(a)
WJNR (FM)	1972	103.9 MHz	6am-12m	560
Iron River				
WIKB	1949	1230 kHz	6am-10pm (8am-10pm Sun.)	(a)

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Ironwood				
WJMS	1931	590 kHz	6an-12m	(c)
WIMI (FM)	1975	99.7 MHz	n.a.	100,000
WUPM (FM)	1978	106.9 MHz	n.a.	25,000
Ishpeming				
WJPD	1947	1240 kHz	5:55am-12m	(a)
WJPD (FM)	1975	92.3 MHz (S)	5:55am-12m	100,000
WUPY	1959	970 kHz	6am-LSS	5,000
WMQT (FM)	1974	107.1 MHz	n.a.	540
Jackson				
WHFI (FM)	1958	94.1 MHz (S)	24 hr.	50,000
WIBM	1926	1450 kHz	24 hr.	(a)
WJCO	1963	1510 kHz	LSR-LSS	5,000
WKHM	1951	970 kHz	24 hr.	1,000
WJOX (FM)	1963	106.1 MHz	24 hr.	20,000
Kalamazoo				
*WIDR (FM)	1975	89.1 MHz	n.a.	10
WKMI	1947	1360 kHz	24 hr.	(c)
WKPR	1960	1420 kHz	6am-LSS	1,000
WKZO	1923	590 kHz	5:30am-1:05am	5,000
*WMUK (FM)	1951	102.1 MHz	n.a.	50,000
WQLR (FM)	1964	106.5 MHz (S)	24 hr.	40,000
WYYY	1956	1470 kHz	6am-LSS	500
Kentwood				
WKWM	1978	1140 kHz	n.a.	(k)
Lansing				
WILS	1946	1320 kHz	24 hr.	(c)
WILS (FM)	1967	101.7 MHz	24 hr.	3,000
WITL	1961	1010 kHz	LSR-LSS	500
WITL (FM)	1961	100.7 MHz	24 hr.	55,000
WJIM	1934	1240 kHz	24 hr.	(a)
WJIM (FM)	1960	97.5 MHz	6:45am-12m (7:30am-12m Sat. & Sun.)	28,000
Lapeer				
WMPC	1926	1230 kHz	n.a.	(a)
WTHM	1962	1530 kHz	LSR-LSS	5,000
WTHM (FM)	1968	103.1 MHz	6am-9pm	3,000
Ludington				
WKLA	1944	1450 kHz	7am-10pm	(a)
WKLA (FM)	1971	106.3 MHz (S)	7am-10pm	3,000
Manistee				
WMTE	1951	1340 kHz	5am-12m	(a)
WRRK (FM)	1970	97.7 MHz	5am-12m	3,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Manistique				
WTIQ	1965	1490 kHz	6am-10pm	(a)
Marine City				
WSMA	1951	1590 kHz	6am-LSS	1,000
Marquette				
WDMJ	1931	1320 kHz	5:50am-12m	1,000
WHWL (FM)	1965	95.7 MHz (S)	5:50am-12m	100,000
*WNMU (FM)	1963	90.1 MHz	n.a.	100,000
WUUN	1974	100.1 MHz	24 hr.	3,000
Marshall				
WELL (FM)	1968	104.9 MHz	n.a.	3,000
Mason				
WUNN	1967	1110 kHz	n.a.	(1)
Menominee				
WAGN	1952	1340 kHz	5:55am-10:30pm	(a)
Midland				
WMPX	1948	1490 kHz	24 hr.	(a)
WRCI (FM)	1976	93.5 MHz (S)	n.a.	3,000
WVGN (FM)	1961	99.7 MHz (S)	n.a.	100,000
Monroe				
WHND	1956	560 kHz	6am-LSS	500
WVMO (FM)	1967	98.3 MHz	5:43am-12:05am	3,000
WEJY	N.O.A.	89.5 MHz	n.a.	10
Mount Clemens				
WBRB	1956	1430 kHz	5am-LSS	500
WBRB (FM)	1960	102.7 MHz	5am-1am (5am-2am Sat.) (7am-12m Sun.)	17,000
Mt. Pleasant				
WCEN	1949	1150 kHz	5:45am-11:15pm	1,000
WCEN (FM)	1963	94.5 MHz	5:40am-11:15pm	16,000
*WCMU (FM)	1964	89.5 MHz	n.a.	100,000
*WMHW (FM)	1972	91.5 MHz	n.a.	32
Munising				
WQOX	1956	1400 kHz	6am-10pm	(a)
WQOX (FM)	1974	98.3 MHz	6am-10pm	1,000
Muskegon				
WKBZ	1926	850 kHz	5:30am-12m	1,000
WMUS	1947	1090 kHz	LSR-LSS	1,000
WMUS (FM)	1962	106.9 MHz (S)	5:30am-12m	31,000
WTRU	1949	1600 kHz	5:30am-12:30am	5,000
WQWQ (FM)	1971	104.5 MHz (S)	24 hr.	50,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Muskegon Heights				
WKJR	1963	1520 kHz	LSR-LSS	10,000
WKJR (FM)	1974	101.7 MHz	6am-12m	3,000
Newberry				
WNBY	1966	1450 kHz	6am-10pm	1,000
WNBY (FM)	1977	93.5 MHz	n.a.	3,000
Niles				
WNIL	1956	1290 kHz	6am-LSS	500
WAOR (FM)	1968	95.3 MHz	n.a.	3,000
Novi				
WOVI (FM)	1978	89.5 MHz	n.a.	10
Oak Park				
*WOPR (FM)	1974	90.3 MHz	n.a.	19
Olivet				
*WOCR (FM)	1975	89.7 MHz	n.a.	10
Orchard Lake				
*WBLD (FM)	1974	89.3 MHz (S)	n.a.	10
Otsego				
WAOP	1962	980 kHz	6am-LSS	1,000
Owosso				
WOAP	1947	1080 kHz	LSR-LSS	1,000
WOAP (FM)	1965	103.9 MHz	n.a.	2,800
Petoskey				
WJML	1966	1110 kHz	LST-LSS	10,000
WJML (FM)	1965	98.9 MHz	5:30am-12m	100,000
WMBN	1946	1340 kHz	24 hr.	(a)
WMBN (FM)	1967	96.7 MHz (S)	6am-11:15pm	1,000
Plymouth				
*WSDP (FM)	1972	89.3 MHz	n.a.	10
Pontiac				
WPON	1954	1460 kHz	24 hr.	1,000
Portage				
WBUK	1966	1560 kHz	6am-LSS	1,000
Port Huron				
WHLS	1938	1450 kHz	24 hr.	(a)
WSAQ (FM)	1964	107.1 MHz (S)	24 hr.	3,000
*WORW (FM)	1973	91.9 MHz	n.a.	10
WPHM	1947	1380 kHz	5:am-12m	5,000
*WSGR (FM)	1971	91.3 MHz	n.a.	10

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Rockford				
WJPW	1964	810 kHz	LSR-LSS	500
Rogers City				
WHAK	1948	960 kHz	6:15am-LSS (7:55am-LSS Sun.)	5,000
Royal Oak				
WEXL	1923	1340 kHz	6am-12m	(a)
*WOAK (FM)	1957	89.3 MHz	n.a.	10
Saginaw				
WKNX	1947	1210 kHz	LSR-LSS	10,000
WSAM	1940	1400 kHz	24 hr.	(a)
WKCQ (FM)	1947	98.1 MHz (S)	24 hr.	50,000
WIOG (FM)	1969	106.3 MHz (S)	6am-12m	3,000
WSGW	1950	790 kHz	5:30am-12m	(c)
WWWS (FM)	1968	107.1 MHz	24 hr.	2,000
St. Ignace				
WIDG	1966	940 kHz	LSR-LSS	5,000
St. Johns				
WRBJ	1959	1580 kHz	LSR-LSS	1,000
WRBJ (FM)	1972	92.1 MHz (S)	6am-12m	3,000
St. Joseph				
WSJM	1956	1400 kHz	5am-1am	(a)
WIRX (FM)	1966	107.1 MHz (S)	5am-1am	3,000
St. Louis				
WMLM	1977	1540 kHz	n.a.	1,000
Saline				
WNRS	1958	1290 kHz	6am-LSS	500
Sandusky				
WMIC	1965	1560 kHz	6am-LSS	1,000
WMIC (FM)	1965	97.7 MHz	6am-11:15pm	3,000
Sault Ste. Marie				
WSOO	1940	1230 kHz	6am-12m	(a)
WSMM (FM)	1972	92.7 MHz	6am-1am	3,000
WSUE (FM)	1978	101.3 MHz	n.a.	90,000
Southfield				
*WSHJ (FM)	1967	88.3 MHz	n.a.	125
South Haven				
WJOR	1961	940 kHz	LSR-LSS	1,000
Spring Arbor				
*WSAE (FM)	1963	89.3 MHz	n.a.	100,000
Sturgis				
WSTR	1951	1230 kHz	19 hr.	(a)
WSTR (FM)	1953	99.3 MHz	19 hr.	1,000

TABLE XVIII-6. MICHIGAN RADIO STATIONS: 1979 (cont.)

City and call letters	On air	Operating frequency	Operating schedule	Power (watts)
Tawas City-East Tawas				
WDBI (FM)	1972	101.7 MHz	5am-12m	3,000
WIOS	1958	1480 kHz	LSR-LSS	1,000
Three Rivers				
WLKM	1962	1510 kHz	LSR-LSS	500
WLKM (FM)	1975	95.9 MHz	5:30am-11pm	3,000
Traverse City				
WCCW	1960	1310 kHz	6am-LSS	5,000
WCCW (FM)	1966	92.1 MHz	24 hr.	840
WLDR (FM)	1966	101.9 MHz (S)	5:45am-11pm	50,000
WTCM	1941	1400 kHz	6am-11pm	(a)
WTCM (FM)	1965	103.5 MHz (S)	6am-11pm	38,200
WNMC	N.O.A.	90.9 MHz	n.a.	10
Warren				
*WPHS (FM)	1964	91.5 MHz	n.a.	10
West Branch				
WBMB	1971	1060 kHz	LSR-LSS	1,000
WBMI	N.O.A.	105.5 MHz	n.a.	3,000
Whitehall				
WLRC	1968	1490 kHz	5:30am-12m	(a)
WLRQ (FM)	1975	95.3 MHz	5:30am-12m	3,000
Wyoming				
WYGR	1964	1530 kHz	LSR-LSS	500
Ypsilanti				
*WEMU (FM)	1965	88.1 MHz	n.a.	10
WSDS	1962	1480 kHz	6am-LSS	500
WYFC	1962	1520 kHz	LSR-LSS	250
Zeeland				
WZND (FM)	1971	99.3 MHz	5am-12:30am	3,000

SOURCES: Broadcasting Publications, Inc., Broadcasting Yearbook, 1979 (Washington, D.C.: 1979), pp. B-102 to B-109; and Standard Rate and Data Service, Inc., Spot Radio Rates and Data and Spot Radio, Small Markets (Skokie, Ill.: monthly) (operating schedule data).

NOTE: The operating schedule data pertain to 1975.

a. 1,000 watt days, and 250 watt nights.
b. 1,000 watt days, and 500 watt nights.
c. 5,000 watt days, and 1,000 watt nights.
d. 50,000 watt days, and 10,000 watt nights.
e. 50,000 watt days, and 5,000 watt nights.
f. 165,000 watt days, and 43,000 watt nights.
g. 10,000 watt days.
h. 10,000 watt days, and 1,000 watt nights.
i. Satellite to WVOM (FM), Ann Arbor.
j. 500 watt days, and 250 watt nights.
k. 500,000 watt days.
l. 250 watt days.

kHz: kilohurtz.
LSR-LSS: Local sunrise to local sunset.
MHz: megahurtz
N.O.A.: not on air yet.
QS: quadraphonic stereo.
S: stereo.
12m: midnight.tt nights
*: noncommercial stations.

TABLE XVIII-7. MICHIGAN TELEVISION STATIONS: 1979

City and call letters	Channel	On air	Major network affiliation	Effective radiated power (kilowatts) Visual	Aural
Alpena					
WBKB-TV	11	1975	CBS	316	63.2
*WCML-TV	6	1975	Ind.	100	15.1
Ann Arbor					
WRHT	31	(a)	n.a.	1,096	217.0
Battle Creek					
WUHQ-TV	41	1971	ABC	1,380	138.0
Bay City					
WNEM-TV	5	1954	NBC	100	20.0
Cadillac					
WWTV	9	1954	CBS	316	51.3
Cheboygan					
WTOM-TV	4	1959	NBC[b]	100	20.0
Detroit					
CBET	9	1954	CBC[c]	325	65.0
WGPR-TV	62	1975	Ind.	759	75.9
WJBK-TV	2	1948	CBS	100	10.0
WKBD-TV	50	1965	Ind.	2,090	209.0
*WTVS	56	1955	PBS	617	61.7
WWJ-TV	4	1947	NBC	98	9.7
WXON	20	1968	Ind.	501	50.1
WXYZ-TV	7	1948	ABC	316	31.6
East Lansing					
*WKAR-TV	23	1972	PBS	1,100	219.0
Escanaba					
WJMN-TV	3	1969	NBC	100	20.0
Flint					
WJRT-TV	12	1958	ABC	316	31.6
Grand Rapids					
*WGVC	35	1972	PBS	1,000	200.0
WOTV	8	1949	NBC	282	56.2
WZZM-TV	13	1962	ABC	295	63.0
Jackson					
WWLD-TV	18	(a)	n.a.	1,084	214.0
Kalamazoo					
WKZO-TV	3	1950	CBS	100	20.0
Lansing					
WJIM-TV	6	1950	CBS	100	20.0

TABLE XVIII-7. MICHIGAN TELEVISION STATIONS: 1979 (cont.)

City and call letters	Channel	On air	Major network affiliation	Effective radiated power (kilowatts) Visual	Aural
Marquette					
WLUC-TV	6	1956	CBS	100	20.0
*WNMU-TV	13	1972	PBS	316	63.1
Mount Pleasant					
*WCMU-TV	14	1967	PBS	39.8	7.9
Onondaga					
WILX-TV	10	1959	NBC	309	61.7
Saginaw					
WEYI-TV	25	1953	CBC[c]	4,070	40.7
Sault Ste. Marie					
WGTQ	8	n.a.	ABC[d]	316	163.6
WWUP-TV	10	1962	CBS[e]	253	50.5
Traverse City					
WGTU	29	1971	ABC	1,000	200.0
WPBN-TV	7	1954	NBC	316	63.2
University Center					
*WUCM-TV	19	1964	PBS	562	56.2

SOURCE: Broadcasting Publications, Inc., Broadcasting Yearbook, 1979 (Washington, D.C.: 1979), pp. B-110 to B-112.

a. Not on the air yet.

b. Satellite of WPBN-TV Traverse City.

c. Windsor, Ontario, Canada.

d. Satellite of WGTU-TV Traverse City.

e. Satellite of WWTV Cadillac.

*: noncommercial stations.

n.a.: not available.

TABLE XVIII-8. BUSINESS AND RESIDENCE TELEPHONES IN MICHIGAN AND THE UNITED STATES: YEARS ENDED 31 DECEMBER 1960-1978

	Michigan				United States			
Year	Business	Residential	Total	Percentage of households with service[a]	Business	Residential	Total	Percentage of households with service[a]
1960	829,300	2,486,500	3,315,800	n.a.	20,779,000	53,562,100	74,341,100	n.a.
1961	853,300	2,530,500	3,383,800	n.a.	21,693,500	55,731,900	77,425,400	79
1962	884,800	2,620,700	3,505,500	87	22,702,500	58,269,200	80,971,700	80
1963	914,200	2,726,300	3,640,500	88	23,609,400	60,840,900	84,450,300	81
1964	972,700	2,862,000	3,834,700	91	24,716,600	64,070,800	88,787,400	83
1965	1,020,400	3,044,600	4,065,000	93	26,008,300	67,650,500	93,658,800	85
1966	1,083,900	3,217,100	4,301,000	94	27,413,500	71,372,100	98,785,600	98
1967	1,139,900	3,368,000	4,507,900	94	28,929,300	74,822,600	103,751,900	88
1968	1,198,600	3,512,800	4,711,400	93	30,356,100	78,899,500	109,255,600	89
1969	1,265,800	3,691,500	4,957,300	95	32,220,600	82,980,100	115,200,700	90
1970	1,307,900	3,826,800	5,134,700	95	33,304,800	86,850,000	120,221,000	92
1971	1,332,400	4,012,200	5,344,600	97	34,444,900	90,695,900	125,140,800	93
1972	1,393,000	4,193,000	5,586,000	95	35,989,500	95,613,000	131,602,500	92
1973	1,440,927	4,419,084	5,860,011	98	37,434,884	100,853,505	138,228,389	94
1974	1,487,568	4,577,214	6,064,782	98	38,748,513	105,222,939	143,971,452	94
1975	1,490,220	4,761,455	6,251,675	98	39,497,650	109,510,153	149,007,803	94
1976	1,548,286	4,977,160	6,525,446	99	40,682,411	114,490,857	155,173,288	95
1977	1,611,508	5,157,834	6,769,342	100	42,319,549	119,752,597	162,072,146	96
1978	1,654,291	5,326,848	6,981,139	100	44,284,209	124,742,739	169,026,948	97

SOURCE: Federal Communications Commission, Statistics of Communications Common Carriers, 1960 through 1978 (Washington, D.C.: annually), Table 6 (1978).

a. Households with service are the sum of residence main, apartment house PBX and residence service main telephones, and other residence PBX systems. There tends to be a slight overstatement of the proportion of households with telephone service.

n.a.: not available.

TABLE XVIII-9. SELECTED DATA OF CLASS A TELEPHONE CARRIERS IN MICHIGAN: YEARS ENDED 31 DECEMBER 1960-1978

Year	Miles of wire in cable (1,000)	Miles of aerial wire (1,000)	Miles of radio relay system	Central offices	Number of calls originating from company and service telephones[a] (millions)	
					Local	Toll
1960	14,442	387	1,966	637	5,393	162
1961	15,315	379	1,869	651	5,378	164
1962	15,830	367	1,657	661	5,412	171
1963	16,534	360	1,749	667	5,704	186
1964	17,686	337	1,803	705	6,009	306
1965	19,062	318	2,048	712	6,450	235
1966	20,841	308	2,206	725	6,755	264
1967	23,032	288	2,191	805	7,220	295
1968	25,217	264	2,280	817	7,441	333
1969	27,503	226	2,432	833	7,956	351
1970	29,510	184	2,421	837	8,324	383
1971	31,279	157	2,588	848	8,887	407
1972	33,273	128	2,335	862	9,278	566
1973	35,825	108	2,801	883	9,672	676
1974	38,416	97	2,853	903	10,113	699
1975	40,691	76	3,473	926	10,116	976
1976	42,532	61	2,939	934	10,615	1,055
1977	44,328	52	2,362	941	11,105	1,186
1978	46,438	39	2,324	954	11,752	1,238

SOURCE: Federal Communications Commission, Statistics of Communications Common Carrier, 1960 through 1978 (Washington, D.C.: annually), Table 8 (1978).

a. Partly estimated.

TABLE XVIII-10. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1975-1979

Company	Main office	1975	1976	1977	1978	1979
Alba	Alba	359	396	416	444	497
Allendale	Allendale	2,421	2,567	2,582	2,798	2,960
Au Gres	Au Gres	1,754	1,867	2,005	1,920	2,075
Augusta[a]	Augusta	--	--	1,232	1,270	1,370
Banfield	Banfield	923	930	970	1,008	1,002
Baraga	Baraga	1,399	1,460	1,489	1,595	1,542
Barry County	Delton	3,350	3,358	3,417	3,461	3,668
Blanchard Tel. Assn., Inc.	Blanchard	759	784	798	843	865
Bloomingdale	Bloomingdale	974	1,040	1,071	1,129	1,181
Camden	Camden	3,928	3,887	4,022	4,105	4,150
Carr	Branch	650	680	725	758	821
Central[b]	Chesaning	6,668	7,066	13,913	14,771	15,178
Chatham	Chatham	1,597	1,710	1,838	1,937	2,003
Chippewa County	Brimley	472	622	691	648	619
Clayton	Clayton	505	526	530	541	554
Climax	Climax	694	712	725	754	799
Concord	Concord	1,239	1,274	1,303	1,345	1,352
Continental	Pinconning	26,911	28,440	30,547	32,347	33,704
Deerfield Farmers	Deerfield	1,878	1,936	1,944	2,035	2,112
Drenthe	Drenthe	469	452	455	474	466
Drummond Island	Drummond Island	772	806	870	956	1,062
Farmers Mutual	Chapin	440	444	455	480	486
General	Main	379,388	387,887	403,385	417,929	431,712
	PBX	46,259	47,592	49,189	52,615	53,523
Hadley	Hadley	763	787	837	905	969
Hickory	Hickory Corners	843	879	952	990	1,023
Island	Bois Blanc	252	251	295	313	333
Kaleva	Kaleva	1,116	1,201	1,266	1,363	1,418
Kingsley	Kingsley	1,300	1,339	1,434	1,541	1,584
Lennon	Lennon	1,256	1,278	1,316	1,366	1,422
Mesick	Mesick	1,343	1,462	1,553	1,579	1,586
Michigan Bell	Main	2,851,044	2,919,866	2,992,973	5,038,858	3,137,272
	PBX	639,077	670,573	696,225	712,685	729,627
Mid-Michigan Tel. Corporation	Stockbridge	26,321	26,880	27,983	28,886	30,958
Midway	Watton	665	681	683	656	685
Midwest[b]	Chesaning	3,248	3,357	--	--	--

TABLE XVIII-10. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1975-1979 (cont.)

Company	Main office	1975	1976	1977	1978	1979
Munising	Munising	2,840	2,973	3,033	3,051	3,074
New Morenci Home	Morenci	1,585	1,594	1,439	1,623	1,639
Northern	Chesaning	543	618	785	791	779
Ogden Mutual	Blissfield	385	384	396	402	393
Ontonagon County	Ontonagon	3,395	3,350	3,412	3,345	3,437
Parma[c]	Parma	1,521	1,533	1,568	1,532	--
Peninsula	Old Mission	612	657	676	717	742
Pigeon	Pigeon	1,142	1,147	1,160	1,166	1,184
Public Service[b]	Chesaning	2,506	2,656	--	--	--
Sand Creek	Adrian	950	951	975	978	977
Shiawassee	Perry	2,982	3,129	3,266	3,439	3,602
Southern	Brooklyn	7,612	7,875	8,338	8,735	9,154
Springport	Springport	1,211	1,297	1,308	1,318	1,346
Twining	Twining	350	365	399	400	411
United[a]	Augusta	1,181	1,208	--	--	--
Upper Peninsula	Carney	1,904	1,955	2,045	2,119	2,199
Waldron	Waldron	393	393	407	419	436
Westphalia	Westphalia	657	693	681	692	705
Winn	Winn	482	415	437	450	459
Wolverine	Millington	5,183	5,420	5,688	5,984	6,188
Amberg[d]		1,080	1,150	1,266	1,054	n.a.
Niagara[d]		2,254	2,408	2,489	2,573	n.a.

SOURCE: Michigan Public Service Commission, special release; and Michigan Independent Telephone Association, special release.

NOTE: General Telephone Company of Indiana, General Telephone Company of Ohio, and General Telephone Company of Wisconsin also have exchanges in Michigan.

a. United changed name to Augusta.

b. Midwest and Public Service merged into Central.

c. The Parma Telephone Company merged with the Mid-Michigan Telephone Corporation and is operated as a separate exchange of that company.

d. Headquartered in Wisconsin. Amberg had telephones in Goodman and Pembrine; Niagara in Aurora, Florence, Niagara, and Spread Eagle.

n.a.: not available.

XIX. ENERGY PRODUCTION AND CONSUMPTION

According to a recent publication from the Federal Energy Data System, Michigan ranked twenty-first among the states in energy consumption per capita in 1960. Louisiana, Wyoming, and Texas, leaders in petroleum and natural gas production, themselves energy intensive, topped the list. Because it has few people in relation to its geographic expanse, Wyoming also spends considerably more than the average on transportation.

Fourth on the list is Indiana. The Hoosiers host several steel furnaces and gasoline refineries in the Gary area. The names of several southern states, poor and with relatively little manufacturing, as well as some eastern states with good mass transit systems, appeared at the bottom of the list.

By 1977 several southern states had moved up in the rankings, most noticeably Mississippi (from last to 31), Georgia (from 48 to 26) and South Carolina (from 44 to 25). These states have broadened their economic bases through industrial recruitment, mostly vintage manufacturers from the North. South Carolina also is a leader in attracting foreign direct investment.

When some states move up in the rankings, others must move down. Every state bordering the Great Lakes declined in the rankings, particularly Michigan, which fell from 21 to 35. Table XIX-1 reinforces the evidence of Michigan's retreat in energy consumption, compared with the nation as a whole. There it will be seen that our energy appetite was growing considerably more rapidly than the rest of the nation's during the early 1960s, but it has grown at a rate well below the U.S. average since then.

The turnaround essentially reflects the way in which Michigan benefited from the exceptional national prosperity of the mid-1960s and its subsequent performance. Almost everywhere in the country, unemployment was declining and people were stepping up automobile purchases. Nationally, the level of income received by households increased by 26 percent, after adjustment for increased prices, and in Michigan the rate of gain was 31 percent between 1960 and 1965. The number of factory hours worked by Michigan production workers jumped by 22 percent, or more than double the national figure of 10 percent. The growth rate here was unsustainable because of capacity limitations as well as a saturated demand for motor vehicles. Also, the South accelerated its recruitment of industry during the 1960s, at the expense of states that hosted outmoded factories. Between 1965 and 1977, the number of production hours in Michigan factories declined by 5 percent, whereas nationally there was no change.

Economic growth during the early 1960s spurred industrial consumption of coal, natural gas, and electricity in this state (see Table XIX-2). In the use of energy for transportation, Michigan's gain was only slightly above the national figure, suggesting that Michiganians became more prone to spend their vacations somewhere else. This conclusion is borne out by the statistics in Table XIX-2, which show that energy consumption for commercial purposes grew by only 17 percent in the Wolverine State, compared with 25 percent in the rest of the country.

Coal consumption has declined in Michigan since the mid-1960s; in the nation, the use of this fuel has grown, albeit slowly in comparison with petroleum, natural gas, and nuclear energy. Chemical, paper, and transportation manufacturers along with the electrical utilities were the major coal

consumers in this state during the early 1960s, and they still are today. However, Michigan chemical producers used fewer than one million tons of coal in 1976, the most recent figure, compared with 2.7 million tons during 1963. Consumption among paper companies in the state fell from 1.9 million tons to less than 600,000 tons; among motor vehicle manufacturers, it dropped from 1.7 million tons to 1.1 million tons. Less coal and coke are consumed by Michigan's iron castings and steel industries also, despite increases in production. Coal's decline appears to be the result of switching to other fuels, especially nuclear energy, natural gas, and residual fuel oil (and to electric arc furnaces in basic steel and cast iron); conservation; and a changing industrial base, in that order. In 1965, 95 percent of the state's electricity was made from coal, a figure that now is about 65 percent. Moreover, we have become a new importer of electricity during periods of peak demand, such as occurred in 1978.

Natural gas has replaced coal as Michigan's most important fuel source (see Table XIX-3). However, we still consume more coal and less natural gas per capita than the rest of the nation. We consume appreciably less petroleum, on average, than the nation, primarily because of a heavier reliance on residual fuel oil elsewhere. This fuel is popular in the East, where it has replaced coal as a boiler fuel in order to satisfy air quality standards. We have about the same degree of nuclear dependence as the rest of the country. Hydroelectric power is a negligible factor in Michigan's total energy picture.

Energy price data are sketchy. Those for the Detroit area indicate that gasoline, fuel oil, and electricity prices there are above the average for large U.S. cities, whereas natural gas sells for less. It seems likely that the same is true of the state in comparison with the nation as a whole. Michigan's major advantage in this regard is its supply of natural gas. The state's vast depleted oil and gas fields are used to store Gulf Coast gas that is delivered during the summer when demand is low. Production from native wells satisfies about 15 percent of state demand for gas, about 5 percent of that for petroleum. Self-sufficiency in coal is zero, as Michigan's fields are not economical at current prices.

The Energy Administration, Michigan Department of Commerce, has developed data on energy usage and prospects for the state, in total and by type. The U.S. Department of Energy is another source of broad energy statistics. Figures on hydrocarbon production, consumption, and reserves are compiled by the U.S. Bureau of Mines in cooperation with the Geological Survey Division, Michigan Department of Natural Resources. Consumption of motor fuels is estimated by the U.S. Highway Administration on the basis of motor fuel tax receipts. The Michigan Public Service Commission publishes financial statistics on the operations of natural gas distribution and electric utilities. The Federal Power Commission is a leading source of data on the physical aspects of electricity production. The Edison Electric Institution publishes various statistics in its Statistical Yearbook of the Electric Utility Industry. The American Gas Association publishes data on gas utilities in its annual Gas Facts.

Consumption of fuels for heat and power is a regular feature of the Census of Manufactures, conducted twice each decade. The Housing Census

yields information about the kinds of fuel used for space and water heating and cooking.

Related data on oil and gas wells and natural gas processing appear in chapter XIII. A list of oil refineries in the state is presented in chapter XV.

Data on plant and customers of each electric and gas distribution utility are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating public utilities.

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TABLE XIX-1. PER CAPITA AND TOTAL ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES: 1960-1977

Year	Per capita (Million BTU)		Total (Trillion BTU)		Michigan as a percentage of United States	
	Michigan	United States	Michigan	United States	Per capita	Total
1960	227	235	1,779.92	42,357.66	97	4.2
1961	228	235	1,795.94	43,003.97	97	4.2
1962	244	245	1,932.41	45,044.70	100	4.3
1963	253	252	2,041.14	47,416.78	100	4.2
1964	259	261	2,118.09	49,877.89	99	4.2
1965	272	269	2,271.45	52,117.52	101	4.4
1966	285	282	2,425.89	55,075.74	101	4.4
1967	293	298	2,530.90	58,915.62	98	4.3
1968	303	310	2,633.88	61,703.92	98	4.3
1969	310	325	2,720.58	65,380.18	95	4.2
1970	314	334	2,796.27	68,065.78	94	4.1
1971	312	335	2,791.51	69,159.30	93	4.0
1972	328	351	2,958.19	73,016.17	93	4.1
1973	328	357	2,972.05	74,966.24	92	4.0
1974	310	345	2,822.54	72,903.81	90	3.9
1975	314	335	2,864.23	71,294.15	94	4.1
1976	322	348	2,934.07	74,764.05	93	3.9
1977	306	355	2,800.36	76,846.44	86	3.6

SOURCE: Developed from the Energy Information Administration, U.S. Department of Energy, Federal Energy Data System (FEDS) Statistical Summary Update (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and Table I-2.

TABLE XIX-2. PERCENTAGE CHANGE IN ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES, BY FUEL TYPE AND CONSUMER TYPE: 1960-1965, 1965-1977, AND 1960-1977

Item	Percentage change					
	Michigan			United States		
	1960-65	1965-77	1960-77	1960-65	1965-77	1960-77
Gross energy consumption:						
By fuel type						
Gasoline	23	47	80	17	57	84
Residual fuel oil	(29)	166	90	4	95	103
Distillate	(5)	29	22	9	36	48
Diesel	150	158	545	66	164	339
Jet fuel	38	37	89	66	58	162
LPG	31	140	214	26	64	107
Kerosene	45	(77)	(67)	(2)	(35)	(36)
Coal	32	(18)	8	19	20	43
Natural gas	52	34	103	39	38	92
Nuclear	0	5,615	0	0	6,827	0
Hydro	(8)	(52)	(56)	33	14	51
Other	3	47	51	16	46	70
By end use						
Residential	19	5	25	16	23	43
Commercial	17	44	69	25	45	81
Industrial						
Coal	16	(58)	(52)	9	(37)	(32)
Coke	18	(25)	(11)	17	(17)	(3)
Natural gas	66	41	134	37	42	95
Electric	48	73	156	26	75	120
Total	25	(5)	18	19	26	51
Transportation	27	56	97	25	61	102
Total	28	23	57	23	47	81

SOURCE: Developed from Energy Information Administration, U.S. Department of Energy, Federal Energy Data System (FEDS) Statistical Summary Update (Washington, D.C.: U.S. Government Printing Office, 1979), Tables 1, 3, 4, 5, and 6.

NOTE: Figures in parentheses are negative.

TABLE XIX-3. PER CAPITA ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES, BY FUEL TYPE AND CONSUMER TYPE: 1960, 1965, AND 1977

(Millions of BTUs)

Item	Consumption per capita					
	Michigan			United States		
	1960	1965	1977	1960	1965	1977
Gross energy consumption:						
By fuel type						
Gasoline	43	50	67	42	46	65
Residual fuel oil	9	6	15	19	19	33
Distillate	22	19	23	20	20	24
Diesel	1	2	6	2	4	9
Jet fuel	2	3	4	4	6	9
LPG	1	2	4	3	4	5
Kerosene	3	4	1	3	3	2
Coal	86	106	79	55	61	66
Natural gas	48	68	84	58	75	93
Nuclear	0	0	12	0	0	12
Hydro	2	2	1	8	10	11
Other	10	9	12	19	21	28
By consumer type						
Residential	52	59	56	40	43	48
Commercial	23	26	34	24	28	37
Industrial						
Coal	29	31	12	14	14	8
Coke	16	17	12	12	13	10
Natural gas	15	23	30	25	32	40
Electric	5	8	12	7	8	12
Total	82	95	83	85	95	107
Transportation	46	54	77	54	63	90
Other	24	38	56	32	40	73
Total	227	272	306	235	269	355

SOURCE: Developed from Energy Information Administration, U.S. Department of Energy, Federal Energy Data System (FEDS) Statistical Summary Update (Washington, D.C.: U.S. Government Printing Office, 1979), Tables 1, 3, 4, 5, and 6; and Table I-2.

TABLE XIX-4. MICHIGAN PATTERNS OF ENERGY CONSUMPTION: 1978

Fuel	Residential	Commercial	Industrial	Transportation	Electric generation	Total[a]
L.P.G.	10,458	1,162	4,641	151	0	16,412
	(41.946)	(4.661)	(18.616)	(.605)	(0)	(65.828)
Gasoline	0	1,020	1,351	115,628	0	117,999
	(0)	(5.360)	(7.097)	(607.297)	(0)	(619.754)
Distillate and diesel fuel oil	18,327	9,797	5,322	10,864	2,492	46,802
	(106.615)	(57.066)	(30.931)	(63.283)	(14.516)	(272.411)
Jet fuel	0	0	0	7,130	19	7,149
	(0)	(0)	(0)	(39.601)	(.108)	(39.709)
Residual fuel oil	0	3,625	2,973	230	18,043	24,871
	(0)	(22.790)	(18.691)	(1.446)	(113.436)	(156.363)
Total petroleum products	28,785	19,980	37,308	135,588	20,554	242,215
	(148.562)	(118.913)	(219.404)	(721.848)	(128.060)	(1336.787)
Natural gas	328,260	142,935	278,490	3,575	36,334	789,594
	(333.512)	(145.222)	(282.946)	(3.632)	(37.569)	(802.881)
Coal	119	200	6,564	0	21,495	28,391
	(3.068)	(5.177)	(170.741)	(.012)	(496.534)	(675.532)
Hydro and nuclear	0	0	.1	0	7.7	7.8
	(0)	(0)	(1.285)	(0)	(80.107)	(81.392)
Electricity	21.9	16.0	35.6	.056	- 73.556	0
	(74.841)	(54.733)	(121.386)	(.191)	(-251.151)	(0)
TOTAL	(743.388)	(458.173)	(1093.226)	(726.151)	(0)	(3020.938)

SOURCE: Michigan Energy Administration, special release.

NOTE: Petroleum products in thousands of barrels, natural gas in trillions of cubic feet, coal in thousands of tons, hydro and nuclear, and other in trillions of British thermal units, and electricity in billions of kilowatt hours. The figures in parentheses are in trillions of British thermal units. Totals in the last line are in trillions of British thermal units.

a. Includes agricultural.

TABLE XIX-5. CONSUMPTION OF NATURAL GAS IN MICHIGAN, BY TYPE OF CONSUMER: 1947-1978

(Millions of cubic feet)

Year	Residential	Commercial	Industrial	Electric utilities[a]	Other[a]	Total
1947	44,065	7,406	29,100	--	--	80,571
1948	43,807	6,882	25,289	--	--	75,978
1949	47,582	7,320	29,413	--	--	84,315
1950	75,711	10,746	40,723	--	--	127,180
1951	99,307	13,272	41,704	--	--	154,283
1952	103,039	13,870	47,082	--	--	163,991
1953	103,883	14,008	60,416	--	--	178,307
1954	118,479	15,339	55,104	--	--	188,922
1955	128,169	16,522	62,314	--	--	207,005
1956	155,140	20,313	68,012	--	--	243,465
1957	169,997	26,619	75,737	--	--	272,353
1958	173,207	32,019	92,878	--	--	298,104
1959	192,963	38,456	101,337	--	--	332,756
1960	201,977	43,001	123,553	--	--	368,531
1961	218,084	42,838	146,810	--	--	407,732
1962	234,483	64,495	144,699	--	--	443,677
1963	242,886	68,676	152,015	--	--	463,667
1964	250,971	74,367	175,290	--	--	500,628
1965	270,996	84,834	202,410	--	--	558,240
1966	286,839	95,282	237,742	--	--	619,863
1967	302,472	107,796	279,178	--	--	689,446
1968	315,694	115,075	250,906	6,582	2,049	690,306
1969	333,264	127,848	286,856	15,566	2,214	765,748
1970	340,033	130,589	290,413	32,163	2,119	795,317
1971	343,773	141,821	273,184	69,777	4,396	832,951
1972	355,266	152,874	272,319	58,953	7,096	846,508
1973	341,607	172,202	337,484	46,412	8,072	905,777
1974	346,116	181,738	300,680	46,623	8,348	883,505
1975	334,866	177,218	301,573	47,151	4,731	865,539
1976	339,417	175,097	297,446	53,509	3,123	868,592
1977	299,199	129,286	259,044	32,152	1,980	721,661
1978	328,260	141,748	267,414	36,334	1,187	774,943

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 9 (1975); and Bureau of Mines, special release (1976, 1977, and 1978 data).

a. Included in "Industrial" prior to 1968.

TABLE XIX-6. ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1947-1979

Year	Michigan natural gas				United States Total
	Non-associated[a]	Associated-dissolved[b]	Underground storage[c]	Total	
1947	124,339	44,130	5,148	173,617	166,081,307
1948	121,502	45,876	15,609	182,987	173,869,340
1949	145,642	47,495	21,774	214,911	180,381,344
1950	--	--	--	195,074	185,592,699
1951	119,001	41,366	42,648	203,025	193,811,500
1952	132,752	38,645	83,146	254,543	199,716,225
1953	34,629	46,780	194,110	275,519	211,447,132
1954	31,194	85,703	213,203	330,100	211,710,732
1955	46,764	73,013	206,097	325,874	223,697,445
1956	45,596	82,098	234,092	361,786	237,774,569
1957	84,941	80,980	278,107	444,028	246,569,255
1958	121,669	104,627	271,817	498,113	254,142,037
1959	116,255	113,889	285,259	515,403	262,596,593
1960	116,015	128,427	341,316	585,758	263,758,800
1961	138,966	158,562	369,136	666,664	267,727,671
1962	128,620	144,733	377,207	650,560	273,765,604
1963	112,403	138,924	471,485	722,812	276,151,233
1964	151,853	127,372	495,051	774,276	281,251,454
1965	108,141	127,174	510,489	745,804	286,468,923
1966	73,556	118,999	580,576	773,131	289,332,805
1967	90,774	87,711	582,427	760,912	292,907,703
1968	77,274	79,909	600,243	757,426	287,349,856
1969	73,268	82,186	595,510	750,964	275,108,835
1970	211,134	112,530	616,007	939,671	290,746,408
1971	179,479	184,541	652,462	1,016,482	278,805,618
1972	293,938	385,580	617,297	1,296,815	266,084,846
1973	492,825	431,086	624,597	1,548,508	249,950,207
1974	477,613	455,230	525,411	1,458,254	237,132,497
1975	483,268	536,766	586,715	1,606,749	228,200,176
1976	528,778	524,475	544,893	1,598,146	216,026,074
1977	614,184	587,542	589,474	1,791,200	208,877,878
1978	607,556	562,190	598,835	1,768,581	200,301,707
1979	605,819	531,784	660,320	1,797,923	194,916,624

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); and American Petroleum Institute, special release.

a. Free gas not in contact with crude oil in the reservoir.
b. Associated gas is free gas in contact with crude oil in the reservoir; dissolved gas is gas in solution with crude oil in the reservoir.
c. Gas held in underground reservoirs for storage purposes only.

TABLE XIX-8. PRODUCTION OF SYNTHETIC NATURAL GAS AT CONSUMERS POWER COMPANY'S MARYSVILLE SNG PLANT BY MONTH: 1975-1979

(In thousands of cubic feet at 14.73 PSIG)

Month	Year				
	1975	1976	1977	1978	1979
January	7,024,513	6,873,355	5,992,839	2,463,415	1,912,464
February	5,021,119	6,226,466	5,296,749	2,085,863	1,505,067
March	4,674,565	4,618,923	6,354,009	2,351,936	1,380,965
April	6,803,708	3,376,195	2,235,411	730,264	0
May	6,798,791	4,425,447	0	0	0
June	1,752,392	5,431,891	3,160,746	0	0
July	2,374,697	5,054,170	3,176,918	1,630,270	0
August	6,760,202	4,734,832	3,027,598	2,441,129	0
September	6,725,410	3,051,236	2,877,913	0	0
October	6,608,693	3,629,950	2,818,442	1,925,806	0
November	5,842,241	5,684,299	2,174,487	1,628,098	0
December	6,343,416	6,252,708	3,018,162	2,224,749	0

SOURCE: Consumers Power Company, special release.
NOTE: The Marysville plant has been mothballed for a period of 3 to 5 years.

TABLE XIX-9. PRODUCTION OF NATURAL GAS LIQUIDS FOR FUEL AND CHEMICAL USE AT NATURAL GAS PROCESSING PLANTS AND REFINERIES IN MICHIGAN: 1968-1978

(Thousand barrels)

Year	Natural gas processing plants				Crude oil refineries	
	Propane	Butanes[a]	Natural gasoline[b]	Plant condensate	Propane	Butanes[a]
1968	887	497	1,051	15	1,381	63
1969	771	426	909	12	1,418	99
1970	667	509	591	7	1,357	83
1971	648	327	594	4	1,497	45
1972	523	310	387	4	1,604	110
1973	463	228	366	4	1,224	106
1974	471	378	462	0	1,253	126
1975	581	767	654	0	1,248	2
1976	536	679	3,497	0	1,351	385
1977	565	768	6,566	0	1,185	299
1978	597	909	8,666	0	1,282	40

SOURCE: Bureau of Mines, Mineral Yearbook-Metals, Minerals and Fuels, 1965 through 1975 (Washington, D.C.: annually), Natural Gas Liquids section, Tables 6 and 13 and special release (1976, 1977, and 1978).
a. Includes propane-butane mixture.
b. Includes isopentane.

TABLE XIX-10. SALES OF LIQUEFIED PETROLEUM GASES IN MICHIGAN, BY USE: 1950-1978

(Thousands of gallons)

Year	Residential and commercial[a]	Internal combustion[b]	Industrial[a]	Gas utilities[c]	Miscellaneous uses[d]	Total[d]
1950	42,781	1,075	22,018	27,294	1,416	94,584
1951	42,892	2,011	23,302	27,814	2,660	98,679
1952	41,622	2,543	19,881	14,058	3,243	81,347
1953	42,871	4,252	21,746	11,089	3,246	83,204
1954	47,074	3,515	20,704	6,409	1,940	79,642
1955	52,763	4,347	22,962	6,556	2,506	89,134
1956	59,714	4,043	20,737	4,011	12,653	101,158
1957	62,892	4,851	20,841	4,342	4,971	97,897
1958	72,142	3,256	14,516	2,318	3,605	95,837
1959	88,530	1,538	8,865	1,342	4,472	104,747
1960	95,835	3,881	11,852	995	14,643	127,206
1961	93,155	3,936	10,821	1,743	407	110,062
1962	100,923	4,592	13,380	2,462	445	121,802
1963	128,441	5,454	12,671	5,547	458	152,571
1964	115,546	4,652	15,295	3,613	1,040	140,146
1965	115,907	4,883	22,239	4,029	612	147,670
1966	148,830	6,151	16,007	4,227	1,160	176,375
1967	190,510	10,205	16,595	606	1,093	219,009
1968	197,391	8,524	19,388	2,517	1,036	228,856
1969	229,263	11,195	20,921	2,588	1,877	265,844
1970	221,994	7,202	13,735	3,467	1,545	247,943
1971	242,431	7,922	14,538	3,779	1,730	270,400
1972	289,068	9,105	14,017	5,555	2,313	320,058
1973	287,653	11,032	14,402	5,295	4,757	323,139
1974	270,751	10,961	16,815	5,645	9,077	313,249
1975	257,899	9,857	13,954	3,567	14,463	299,740
1976	285,935	15,509	16,797	3,708	30,865	352,824
1977	270,269	18,579	16,501	5,539	43,983	354,871
1978	258,232	20,939	28,200	2,015	55,340	364,726

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1950 through 1967 (Washington, D.C.: annually), Natural Gas Liquids Section, Table 14 (1967 and 1977 data); and Bureau of Mines, special release (1968 through 1978 data).

a. Heating fuel.

b. Motor fuel.

c. Substitutes for natural gas in mains.

d. Excludes gases used in chemical manufacturing after 1960.

TABLE XIX-11. ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS AND CRUDE OIL IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1960-1979

Year	Natural gas liquids[a] (thousand barrels) Michigan Nonassociated with oil	Michigan Associated-dissolved[b]	Michigan Total	United States total	Crude oil (million barrels) Michigan	Crude oil (million barrels) United States
1960	580	1,039	1,619	6,816,059	78	31,613
1961	595	3,621	4,316	7,049,096	79	31,759
1962	2,001	3,423	5,424	7,311,517	75	31,389
1963	2,048	3,278	5,326	7,673,978	69	30,970
1964	969	4,892	5,861	7,746,632	58	30,991
1965	1,565	3,351	4,916	8,023,534	53	31,352
1966	984	3,057	4,041	8,328,966	71	31,452
1967	1,461	2,083	3,544	8,614,231	63	31,377
1968	1,429	2,163	3,592	8,598,108	55	30,707
1969	1,375	2,681	4,056	8,143,174	52	29,632
1970	5,437	4,466	9,903	7,702,941	46	39,001[c]
1971	4,616	7,968	12,584	7,304,227	59	38,063[c]
1972	5,531	13,495	19,026	6,786,559	--	36,339[c]
1973	7,507	17,539	25,046	6,454,707	72	35,300[c]
1974	4,906	15,358	20,264	6,350,449	82	34,250
1975	3,984	16,649	20,633	6,267,830	93	32,682
1976	5,081	17,316	22,397	6,401,967	139	30,942
1977	11,183	34,015	45,198	5,994,365	133	29,486
1978	20,857	44,836	65,693	5,925,852	190	27,804
1979	28,245	43,281	71,526	5,655,323	176	27,051

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1960 through 1974 (Washington, D.C.: annually), Natural Gas Liquids section, Table 9, and Crude Petroleum and Products section, Table 13 (1975 data); and American Petroleum Institute, special release.

a. Natural gasoline, LP gases, and condensate.

b. Associated natural gas liquids are in contact with crude oil in the reservoir; dissolved natural gas liquids are in solution with crude oil in the reservoir.

c. Includes reserves in the Prudhoe Bay Permo-Triassic reservoir, discovered in 1968 and not included prior to 1970.

TABLE XIX-12. MOTOR FUEL CONSUMPTION IN MICHIGAN, BY TYPE OF FUEL AND HIGHWAY-NONHIGHWAY USES: 1947-1978

(In millions of gallons)

Year	Highway			Gasoline nonhighway	Gasoline losses[b]	Total[c]
	Gasoline	Other[a]	Total			
1947	n.a.	n.a.	1,345	255	22	1,622
1948	n.a.	n.a.	1,461	244	24	1,729
1949	1,521	8	1,529	223	24	1,776
1950	1,663	9	1,672	265	27	1,964
1951	1,750	12	1,762	298	29	2,089
1952	1,818	12	1,830	278	29	2,137
1953	1,991	17	2,008	278	32	2,318
1954	2,043	18	2,061	183	34	2,278
1955	2,217	20	2,237	188	36	2,461
1956	2,249	23	2,272	198	36	2,506
1957	2,324	26	2,350	213	25	2,588
1958	2,338	26	2,364	208	24	2,596
1959	2,428	39	2,467	201	26	2,694
1960	2,517	47	2,564	194	27	2,785
1961	2,528	53	2,581	186	29	2,796
1962	2,610	62	2,672	183	29	2,884
1963	2,790	76	2,866	185	29	3,080
1964	2,969	90	3,059	188	31	3,278
1965	3,130	111	3,241	197	32	3,470
1966	3,292	131	3,423	225	34	3,682
1967	3,384	143	3,527	246	34	3,807
1968	3,634	164	3,798	277	37	4,112
1969	3,843	188	4,031	297	39	4,367
1970	3,908	189	4,097	199	40	4,336
1971	4,063	219	4,282	183	42	4,507
1972	4,338	249	4,587	182	45	4,813
1973	4,524	286	4,810	197	48	5,055
1974	4,324	276	4,600	155	44	4,799
1975	4,386	264	4,650	182	45	4,878
1976	4,340	303	4,943	183	47	5,173
1977	4,710	338	5,048	176	49	5,273
1978	4,853	367	5,220	175	51	5,446

SOURCE: Federal Highway Administration, Highway Statistics, 1947 through 1974 (Washington, D.C.: annually), Tables MF-21, 25, and 26 (1974), and special release (1975-1978 data).

a. Diesel fuel and liquified petroleum gas.

b. Evaporation, handling, and so forth.

c. Excludes aviation jet fuels purchased by the federal government for military use.

n.a.: not available.

TABLE XIX-13. CONSUMPTION OF SELECTED PETROLEUM PRODUCTS IN MICHIGAN: 1952-1978

(Thousands of barrels)

Year	Kerosene[a]	Distillate fuel oil	Residual fuel oil[b]
1952	5,530	22,268	14,153
1953	5,109	22,351	14,809
1954	5,388	24,625	14,675
1955	5,278	27,402	15,387
1956	4,893	29,071	16,008
1957	4,221	28,995	15,330
1958	6,004	29,385	9,340
1959	7,491	28,387	13,498
1960	4,064	30,464	11,242
1961	6,158	30,547	9,896
1962	6,973	31,131	9,275
1963	5,960	30,471	9,746
1964	5,788	29,576	8,905
1965	5,884	31,079	8,011
1966	4,577	32,127	7,634
1967	2,882	37,376	5,415
1968	2,927	36,601	5,667
1969	2,785	37,473	6,704
1970	3,124	38,108	10,059
1971	3,018	41,684	11,605
1972	2,645	48,660	11,388
1973	1,995	47,146	14,560
1974	1,600	44,204	14,876
1975	1,390	41,883	19,239
1976	1,567	43,826	20,656
1977	1,334	44,659	21,345
1978	1,360	45,461	24,871

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Table 24; and Bureau of Mines, special release, (1967 through 1978 data).

a. Excludes jet fuel.

b. Includes crude oil used directly as residual.

TABLE XIX-14. CRUDE RUNS TO STILLS, REFINERY RECEIPTS OF CRUDE OIL, AND PRODUCTION OF GASOLINE IN MICHIGAN: 1952-1978

(Thousands of barrels)

Year	Crude runs to stills	Refinery receipts			Gasoline production
		Michigan crude	Other U.S. crude	Canadian crude	
1952	40,676	13,605	27,321	0	16,929
1953	42,067	12,880	30,059	0	16,942
1954	41,846	13,559	28,860	0	16,140
1955	45,595	12,646	33,589	0	17,894
1956	50,708	11,681	38,356	1,766	19,502
1957	49,414	11,227	37,499	1,535	19,525
1958	44,924	9,412	34,926	1,351	18,294
1959	50,408	10,180	38,611	1,888	19,908
1960	49,768	15,610	31,764	2,542	20,988
1961	47,973	18,453	23,815	5,622	20,513
1962	49,152	17,320	24,342	7,437	21,431
1963	51,380	18,304	26,857	6,227	23,710
1964	51,659	17,423	29,282	4,971	24,989
1965	52,192	14,759	32,184	5,229	25,486
1966	52,949	14,139	32,189	6,686	27,782
1967	50,150	12,800	29,204	8,411	25,664
1968	53,525	12,649	26,249	14,461	26,478
1969	51,877	11,640	27,833	12,547	26,560
1970	53,396	11,159	24,504	17,799	26,804
1971	56,395	10,847	27,381	17,932	27,399
1972	58,447	12,306	28,446	17,780	27,047
1973	44,853	11,624	13,974	19,409	20,509
1974	43,255	12,231	14,951	15,943	19,543
1975	41,318	17,032	15,336	9,248[a]	19,404
1976	45,417	22,123	12,204	11,032	21,230
1977	47,161	25,556	14,247	7,445	21,453
1978	48,670	28,441	12,310	7,736	19,899

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); and Bureau of Mines, special release (1976, 1977, and 1978 data).

a. Includes 418,000 barrels of non-Canadian foreign crude.

TABLE XIX-15. PRODUCING OIL WELLS, AVERAGE PRODUCTION, AND VALUE OF CRUDE PETROLEUM AT WELLS IN MICHIGAN: 1947-1978

Year	Approximate number of oil wells producing 31 December	Average production per well per day[a] (barrels)	Total value at wells (thousands of dollars)	Average value per barrel (dollars)
1947	3,540	12.6	34,540	2.13
1948	3,550	13.0	48,250	2.86
1949	3,820	12.3	45,420	2.75
1950	3,950	11.2	42,730	2.70
1951	3,800	9.8	37,870	2.72
1952	3,980	9.3	35,250	2.66
1953	4,000	8.4	35,870	2.92
1954	4,173	8.1	35,600	2.96
1955	4,034	7.5	32,900	2.92
1956	4,191	7.1	30,824	2.87
1957	3,995	6.8	31,117	3.06
1958	3,895	6.4	27,366	2.94
1959	4,130	7.1	30,688	2.94
1960	4,348	10.3	46,266	2.91
1961	4,301	12.0	55,182	2.92
1962	4,282	10.9	48,775	2.85
1963	4,234	10.3	45,523	2.85
1964	4,151	10.2	43,839	2.81
1965	4,036	9.9	41,091	2.79
1966	4,141	9.6	40,913	2.87
1967	4,004	9.2	39,455	2.89
1968	4,273	8.6	38,287	2.95
1969	3,878	8.2	37,494	3.07
1970	4,311	7.8	36,246	3.10
1971	4,046	7.8	38,859	3.27
1972	3,685	9.2	41,556	3.20
1973	3,733	10.8	59,413	4.07
1974	4,201	12.4	154,746	8.59
1975	3,655	17.0	262,352	10.74
1976	3,770	22.4	329,637	10.84
1977	3,903	23.5	362,722	11.00
1978	3,890	24.4	427,881	12.34

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 10 and 55 (1975 data); and Bureau of Mines, special release (1976, 1977, and 1978 data).

a. Based on average number of wells during the year.

TABLE XIX-16. DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE FOR CONSUMPTION IN MICHIGAN, BY TYPE OF CUSTOMER: 1946 AND 1957-1979

(Thousand short tons)

Year	Electric utilities	Coke and gas plants	Retail dealers	All others	Total
1946	--	3,040[a]	8,460	13,709[b]	25,209
1957	9,838	4,877	3,368	8,172	26,255
1958	8,502	3,082	2,858	7,956	22,384
1959	10,675	4,489	2,892	9,175	27,231
1960	10,191	4,517	2,458	7,910	25,076
1961	9,997	4,121	2,514	7,695	24,327
1962	12,276	4,249	2,358	8,372	27,255
1963	13,582	4,813	2,154	9,339	29,888
1964	14,690	5,309	1,771	9,166	30,936
1965	16,966	5,338	2,032	9,075	33,411
1966	18,464	5,012	1,831	9,463	34,770
1967	19,605	4,591	1,485	9,278	34,959
1968	20,832	4,914	1,474	9,567	36,787
1969	21,432	4,823	1,166	8,253	35,674
1970	23,244	4,942	1,008	7,439	36,633
1971	19,416	4,861	817	7,531	32,625
1972	21,424	5,378	649	7,634	35,085
1973	20,294	4,876	561	5,954	31,685
1974	20,623	3,835	351	4,441	29,250
1975	21,802	5,343	262	3,883	31,290
1976	21,197	4,493	248	3,867	29,805
1977[c]	21,165	4,029	160	3,447	28,801
1978[c]	21,192	2,928	73	3,415	27,608
1979[c]	24,047	4,026	35	4,276	32,385

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1946 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); and Bureau of Mines, special release (1976-1979 data).

a. By product and water gas plants.

b. Industrial; includes electric utilities.

c. Prior to the fourth quarter of 1977, data collection was on a voluntary basis, with some estimating by the Bureau of Mines. Reporting now is mandatory. Since the third quarter of 1977, only actual company figures are tallied to develop state and national totals. The data for 1977 and 1978 are not strictly comparable with each other, therefore, nor with previous years' figures.

TABLE XIX-7. PRODUCTION AND DISPOSITION OF NATURAL GAS IN MICHIGAN AND INTERSTATE NATURAL GAS MOVEMENTS TO AND FROM MICHIGAN: 1960-1978

(Millions of cubic feet)

Year	Production		Disposition			Average wellhead value (cents per mcf)	Interstate movements	
	From gas wells	From oil wells	Used for repressuring	Vented and flared	Marketed production		Deliveries to Canada	Receipts from other states
1960	18,900	8,000	2,087	4,023	20,790	21.4	0	371,540
1961	20,000	12,200	4,023	480	27,697	21.1	0	408,972
1962	18,800	10,500	146	167	28,987	21.3	0	429,472
1963	25,200	10,400	1,640	1,110	32,850	27.1	0	471,030
1964	21,100	12,600	1,608	704	31,388	25.4	0	493,665
1965	24,700	12,200	1,900	442	34,558	25.1	0	547,370
1966	26,868	16,121	8,353	516	34,120	25.2	20,174	653,316
1967	22,709	20,383	7,642	1,861	33,589	24.7	40,418	698,475
1968	24,151	19,779	2,330	1,120	40,480	25.1	68,045	742,934
1969	22,285	16,405	1,719	808	36,163	25.7	29,770	776,010
1970	23,774	16,264	378	809	38,851	26.7	10,643	791,773
1971	10,968	15,482	788	0	25,662	26.4	14,236	839,385
1972	13,523	21,730	0	1,032	34,221	30.7	15,426	823,515
1973	23,272	22,424	0	1,117	44,579	39.2	14,736	925,952
1974	45,745	24,719	63	1,268	69,133	50.4	13,232	869,059
1975	71,907	31,994	176	1,612	102,113	63.4	10,153	826,505
1976	81,628	40,003	327	2,042	119,262	89.5	7,461	742,482
1977	86,037	47,189	981	2,291	129,954	101.0	0	664,617
1978	97,866	54,318	1,401	2,736	148,047	119.7	0	664,144

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); and Bureau of Mines, special release (1976, 1977, and 1978 data).

TABLE XIX-17. OIL AND NATURAL GAS PRODUCTION IN MICHIGAN, BY COUNTY: 1978

County	Oil (barrels)	Natural gas (000 cubic feet)	County	Oil (barrels)	Natural gas (000 cubic feet)
Allegan	118,246	65,072	Manistee	798,033	26,877,199
Antrim	328,775	1,489,924	Mason	245,964	2,384,962
Arenac	162,164	0	Mecosta	24,095	34,318
Barry	6,938	0	Midland	149,922	0
Bay	154,838	0	Missaukee	625,036	351,078
Benzie	47,323	26,186	Monroe	2,816	0
Calhoun	1,530,736	4,535,315	Montcalm	65,423	0
Cass	23,450	0	Montmorency	1,209	0
Cheboygan	2,899	0	Muskegon	6,424	0
Clare	329,498	46,172	Newaygo	8,272	0
Crawford	1,463,945	2,441,218	Oakland	558	16,748
Eaton	357,710	3,182,682	Oceana	23,273	0
Genesee	16,687	0	Ogemaw	589,070	187,245
Gladwin	250,192	0	Osceola	169,452	27,110
Grand Traverse	4,937,047	49,906,255	Oscoda	803	0
Gratiot	9,081	30	Otsego	6,094,111	16,005,339
Hillsdale	941,519	3,252,659	Ottawa	64,367	79,681
Ingham	1,685,010	3,490,200	Presque Isle	381	0
Isabella	107,159	0	Roscommon	350,909	260,182
Jackson	328,720	1,970,310	Saginaw	13,705	0
Kalkaska	3,865,011	24,814,971	Shiawassee	6,738	0
Kent	50,576	0	St. Clair	622,522	1,676,305
Lake	69,168	0	Tuscola	54,731	0
Lapeer	106,683	3,239	Van Buren	7,772	0
Lenawee	260	0	Washtenaw	0	0
Livingston	880	1,274,959	Wayne	7,646	0
Macomb	6,685	2,679,567	Wexford	649,055	3,456,331
			Total	34,663,487	150,535,257

SOURCE: Department of Natural Resources, Michigan's Oil and Gas Fields, 1978, Annual Statistical Summary 30 (Lansing: 1979), p. 8.

TABLE XIX-18. OIL PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1977, 1978, AND CUMULATIVE THROUGH 1978

	First year of production	Production (in barrels) 1977	1978	Cumulative thru 1978
Mississippian				
Marshall	1938	937	819	83,246
Berea	1925	22,261	19,810	2,507,137
Devonian				
Traverse	1927	490,336	425,975	106,240,495
Dundee-Reed City	1927	1,422,637	1,263,315	339,624,377
Detroit River	1939	2,269,774	2,320,982	68,127,436
Silurian				
Salina-Niagaran	1952	26,832,419	28,935,064	132,934,977
Ordovician				
Trenton-Black River	1935	1,926,139	1,697,522	119,528,104
Total barrels, all formations		32,964,503	34,663,487	769,045,772

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978, Annual Statistical Summary 30 (Lansing: 1979), Tables 8 and 10.

TABLE XIX-19. GAS PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1977, 1978, AND CUMULATIVE THROUGH 1978

	First year of production	Production (In thousands of cubic feet) 1977	1978	Cumulative thru 1978
Mississippian				
Stray-Marshall	1931	43,051	41,128	213,622,770
Berea	1936	59,301	30,132	10,982,579
Devonian				
Antrim Shale	1947	170,395	150,434	1,820,446
Traverse	1934	12,826	0	8,983,860
Dundee-Reed City	1929	32,146	23,184	41,402,643
Detroit River	1946	1,123,994	1,011,884	73,274,669
Silurian				
Salina-Niagaran	1929	123,858,773	141,876,290	832,613,020
Ordovician				
Trenton-Black River	1954	7,925,966	7,402,205	200,771,324
Total mcf, all formations		133,226,452	150,535,257	1,377,584,276 [a]

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978, Annual Statistical Summary 30 (Lansing: 1979), Tables 9 and 11.

a. Does not include 3,050,143 Mcf of unassigned gas from early records.

TABLE XIX-20. TYPICAL NET MONTHLY ELECTRIC BILLS FOR RESIDENTIAL SERVICE IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANUARY 1979

	Minimum bill		100	250	500	750	1000
	Amount	Kwh inc.	kwh	kwh	kwh	kwh	kwh
Alpena Power Co.	$3.45	--	$6.99	$12.31	$20.77	$29.13	$37.49
Bay City Electric Light Department	2.37	--	5.84	11.05	18.90	27.27	36.42
Charlevoix Municipal Utilities	1.90	47	4.00	10.00	20.00	30.00	40.00
Chelsea Electric and Water Department	1.00	--	4.34	9.35	15.95	23.25	31.60
Coldwater Board of Public Utilities	2.50	--	6.91	13.60	24.25	35.11	46.26
Consumers Power Co.	2.65	--	6.58	12.46	21.56	30.93	41.14
Detroit Edison Co.	2.65	--	7.27	14.21	21.30	32.86	45.21
Dowagiac Board of Electric Facilities	3.00	30	5.45	10.70	19.45	26.85	33.35
Eaton Rapids, City of	2.75	--	6.75	12.75	22.90	33.28	44.35
Edison Sault Electric Company	2.50	--	4.87	8.43	14.34	20.27	26.19
Escanaba	2.00	--	7.40	15.50	28.30	40.05	51.80
Gladstone, City of	1.59	10	9.13	16.70	22.93	32.99	45.62
Grand Haven Board of Light and Power	2.60	--	6.58	12.54	22.48	33.17	43.86
Hillsdale Board of Public Works	2.50	--	6.90	13.50	24.50	35.50	46.50
Holland Board of Public Works	2.50	--	6.15	11.63	17.88	23.36	32.49
Indiana and Michigan Electric Company	3.50	--	5.94	9.60	14.39	20.05	26.16
Lake Superior District Power Company	3.30	--	7.05	12.67	20.09	28.35	37.72
L'Anse, Village of	2.00	--	7.74	15.59	26.68	37.27	47.86
Lansing Board of Water & Light[a]	1.80	--	5.26	10.44	19.10	27.75	36.40
Lowell Light & Power	1.94	--	5.90	12.20	21.45	31.20	41.27
Marquette Board of Light and Power	3.50	--	8.35	15.62	27.74	39.86	51.97
Marshall City Water & Electric Works	2.50	--	7.04	13.84	26.44	37.28	48.63
Michigan Power Co.	2.25	--	6.84	13.27	22.51	31.75	40.99
Negaunee, City of	2.31	18	7.15	14.60	25.35	36.10	46.85

TABLE XIX-20. TYPICAL NET MONTHLY ELECTRIC BILLS FOR RESIDENTIAL SERVICE IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANUARY 1979 (cont.)

	Minimum bills		100	250	500	750	1000
	Amount	Kwh inc.	kwh	kwh	kwh	kwh	kwh
Niles Board of Public Works	$4.16	--	$7.17	$13.60	$22.37	$30.15	$37.92
Norway Electric Light Department	.65	10	3.60	8.10	10.60	16.10	23.60
Paw Paw, Village of	3.00	48	5.09	11.02	20.91	30.80	40.69
Petoskey Municipal Light Plant	2.00	31	5.29	11.00	20.10	29.21	38.31
Portland Electric Department	2.53	24	5.82	10.77	18.92	26.93	34.87
Saint Louis Light Plant	2.50	--	6.95	13.63	22.89	32.89	44.02
South Haven Board of Public Works	2.95	35	6.82	13.07	18.68	27.01	35.34
Sturgis, City of	4.50	30	7.26	12.98	22.51	31.29	39.57
Traverse City Power Department	2.07	--	6.34	12.75	22.42	32.49	43.15
Upper Peninsula Power Company	3.35	--	8.73	16.81	26.01	36.97	49.42
Wakefield, City of	1.50	--	4.87	9.93	18.35	26.78	35.20
Wisconsin Public Serv. Corporation	3.00	--	6.42	11.56	17.99	25.29	33.45
Wyandotte Department of Municipal Service[a]	2.50	15	6.99	14.69	27.51	40.34	53.16
Zeeland Board of Public Works	2.25	--	6.29	12.34	20.68	29.71	39.80

SOURCE: Federal Power Commission, Typical Electric Bills, 1979 (Washington, D.C.: 1980), Table 9.

a. Lamp replacement service included.

TABLE XIX-21. AVERAGE ELECTRICITY USED BY RESIDENTIAL CONSUMERS IN MICHIGAN CITIES OF 50,000 OR MORE INHABITANTS: 1973 AND 1978

City	Kwh per year 1973	1978	City	Kwh per year 1973	1978
Ann Arbor	7,743	7,450	Redford Twp.	5,262	5,063
Dearborn	5,262	5,063	Roseville	6,983	6,738
Dearborn Hgts	5,262	5,063	Royal Oak	8,239	7,728
Detroit	5,262	5,063	Saginaw	7,038	5,503
Flint	7,278	5,641	St. Clair Shores	6,983	6,738
Grand Rapids	6,374	4,657	Southfield	8,239	7,728
Kalamazoo	6,953	5,546	Sterling Hgts.	6,983	6,738
Lansing[a]	6,681	6,748	Taylor	5,262	5,063
Lincoln Park	5,262	5,063	Warren	6,983	6,738
Livonia	7,103	6,893	Westland	5,262	5,063
Pontiac	4,965	5,144	Wyoming	6,374	4,933

SOURCE: Federal Power Commission, Typical Electric Bills, 1979 (Washington, D.C.: annually), Table 12.
a. Publicly owned utility.

TABLE XIX-22. INSTALLED ELECTRIC GENERATING CAPACITY OF ELECTRIC UTILITIES AND INDUSTRIAL PLANTS IN MICHIGAN, BY TYPE OF PRIME MOVER: 31 DECEMBER 1964-1978

(In thousands of kilowatts)

Year	Electric utilities Fuel	Hydro	Industrial plants	Total
1964	7,769	369	1,136	9,274
1965	7,922	356	1,068	9,346
1966	8,422	356	1,050	9,827
1967	8,930	356	1,057	10,343
1968	9,766	356	1,050	11,173
1969	10,480	351	1,032	11,862
1970	10,830	348	994	12,171
1971	11,842	345	1,014	13,201
1972	12,562	344	1,007	13,913
1973	13,969	1,993[a]	1,023	16,985
1974	16,605	2,322[a]	1,019	19,946
1975	16,629	2,321[a]	1,009	19,959
1976	16,714	2,321[a]	992	20,027
1977	17,304	2,322[a]	987	20,614
1978	18,685	2,322[a]	987	21,994

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1964 through 1978 (Washington, D.C.: annually), Table 918 (1974), and Federal Power Commission, special release (1976, 1977, and 1978).
a. Includes the pump storage facility at Ludington where water is pumped up into a reservoir at night and released to generate electricity to meet peak load requirements during the day.

TABLE XIX-23. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY HYDRO AND STEAM PLANTS IN MICHIGAN: 1947-1979

(Thousands of kilowatt-hours)

Year	Hydro	Total fuel	Total
1947	1,515,260	10,286,151	11,801,411
1948	1,317,595	11,439,182	12,756,777
1949	1,369,281	11,828,945	13,198,226
1950	1,657,676	13,657,865	15,315,541
1951	1,887,163	14,748,717	16,635,880
1952	1,742,813	15,514,789	17,257,602
1953	1,703,471	18,030,717	19,734,188
1954	1,794,827	17,741,426	19,536,253
1955	1,570,501	20,794,422	22,364,923
1956	1,657,054	21,977,346	23,634,400
1957	1,552,989	23,279,559	24,832,548
1958	1,476,445	22,566,773	24,043,218
1959	1,727,293	24,829,808	26,557,101
1960	1,817,341	25,855,001	27,672,342
1961	1,635,689	26,676,370	28,312,059
1962	1,574,044	30,500,999	32,075,043
1963	1,246,431	33,705,179	34,951,610
1964	1,415,103	36,580,829	37,995,932
1965	1,667,243	40,109,476	41,776,719
1966	1,670,859	43,761,330	45,432,189
1967	1,799,231	45,833,170	47,632,901
1968	1,739,363	50,362,597	52,101,960
1969	1,732,982	53,551,867	55,284,849
1970	1,580,343	54,700,398	56,280,741
1971	1,620,622	57,459,327	59,079,949
1972	1,643,545	59,454,562	61,098,107
1973	889,714	61,826,056	62,715,770
1974	1,050,699	60,401,284	61,451,983
1975	989,369	67,168,344	68,157,713
1976	926,133	68,136,377	60,062,510
1977	804,000	67,954,000	68,756,000
1978	949,912	73,584,426	74,534,338
1979	1,184,940	77,044,618	78,229,558

SOURCE: Federal Power Commission, special release.

TABLE XIX-24. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY STEAM IN MICHIGAN, BY KIND OF FUEL: 1947-1979

(Thousands of kilowatt-hours)

Year	Coal	Oil[a]	Natural gas	Nuclear
1947	10,091,869	193,899	383	--
1948	11,166,179	271,284	1,791	--
1949	11,545,109	278,392	5,444	--
1950	13,388,001	262,428	7,436	--
1951	14,468,102	266,522	14,093	--
1952	15,239,622	246,627	28,540	--
1953	17,737,571	255,075	38,071	--
1954	17,456,532	238,257	46,637	--
1955	20,478,674	279,575	36,173	--
1956	21,639,845	294,509	42,992	--
1957	22,925,155	291,124	63,280	--
1958	22,190,144	276,423	100,206	--
1959	24,429,812	241,504	158,492	--
1960	25,143,928	224,771	486,302	--
1961	25,689,641	237,540	749,189	--
1962	30,019,132	241,356	240,482	29
1963	33,171,041	224,283	187,504	122,351
1964	35,980,122	186,144	222,085	192,478
1965	39,472,433	194,419	262,017	180,607
1966	42,880,297	305,813	232,561	342,659
1967	44,495,793	460,034	375,330	502,013
1968	48,938,596	480,930	517,470	425,601
1969	51,346,646	603,897	1,200,274	401,050
1970	46,579,776	2,553,271	5,193,659	374,692
1971	47,187,538	4,277,233	5,607,036	387,520
1972	47,953,045	4,716,918	4,659,418	2,125,181
1973	48,752,756	6,326,295	3,767,128	2,979,877
1974	48,393,892	7,433,244	4,158,308	415,840
1975	48,180,133	8,336,771	3,475,317	7,176,123
1976	46,813,611	8,351,456	3,070,759	9,900,551
1977	47,624,000	8,365,000	1,731,000	10,231,000
1978	47,613,638	10,892,005	1,974,623	13,104,159
1979	51,363,534	8,346,537	2,194,043	15,139,195

SOURCE: Federal Power Commission, special release.

a. Includes distillate and residual and crude burned as residual.

TABLE XIX-25. FOSSIL FUELS CONSUMED IN THE PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES IN MICHIGAN, BY KIND OF FUEL: 1947-1979

Year	Coal[a]	Oil[b]	Gas[c]
1947	5,489,879	415,019	4,942
1948	6,094,489	604,402	15,527
1949	6,006,367	548,766	57,035
1950	6,690,531	511,992	73,200
1951	7,137,483	520,676	141,349
1952	7,414,756	474,303	285,940
1953	8,418,570	496,156	366,404
1954	7,946,133	459,799	425,562
1955	9,251,115	537,571	332,415
1956	9,631,375	567,966	413,409
1957	10,035,173	556,013	591,108
1958	9,231,328	528,549	1,073,800
1959	10,112,980	475,034	1,642,129
1960	10,299,737	439,867	5,208,898
1961	10,282,542	459,840	8,178,632
1962	12,003,368	451,740	2,601,428
1963	13,267,743	423,334	2,032,471
1964	14,441,995	369,453	2,384,103
1965	16,122,593	383,828	2,988,767
1966	18,148,464	733,126	2,494,984
1967	19,014,993	1,136,946	4,718,078
1968	20,820,484	1,175,483	6,842,091
1969	21,952,162	1,436,248	15,495,248
1970	20,123,939	5,479,030	64,406,787
1971	20,507,741	8,746,639	69,808,590
1972	20,420,769	9,641,758	58,899,385
1973	20,507,873	12,040,590	48,016,628
1974	20,755,361	13,713,367	56,172,035
1975	20,913,429	15,674,055	56,710,314
1976	20,369,131	15,573,247	53,510,229
1977	21,095,000	15,760,000	32,133,000
1978	21,494,695	20,423,409	36,333,647
1979	23,133,536	15,609,570	37,859,808

SOURCE: Federal Power Commission, special release.

a. Short tons.

b. Barrels of 42 gallons. Includes distillate and residual and crude burned as residual.

c. Thousands of cubic feet.

TABLE XIX-26. ELECTRIC UTILITY INDUSTRY SALES TO ULTIMATE CONSUMERS IN MICHIGAN: 1961-1979

(Millions of kilowatt hours)

Year	Residential	Commercial and industrial		Street and highway lighting	Other public authorities	Inter-departmental	Total
		Small light and power	Large light and power				
1961	9,213	5,433	11,915	229	320	40	27,150
1962	9,588	5,851	13,495	244	370	37	29,585
1963	9,907	6,268	15,064	252	431	36	31,958
1964	10,526	6,774	16,531	268	458	42	34,599
1965	11,294	7,232	18,608	279	473	48	37,934
1966	12,285	7,888	20,727	294	502	50	41,746
1967	13,188	8,364	21,143	431	954	52	44,131
1968	14,344	9,055	23,189	459	997	53	48,097
1969	15,629	9,816	24,858	476	1,044	52	51,875
1970	16,878	10,505	24,277	497	980	61	53,198
1971	17,896	11,060	26,279	500	998	68	56,801
1972	19,054	11,907	28,567	527	1,033	78	61,166
1973	20,164	12,965	31,460	542	1,067	81	66,279
1974	20,218	12,648	29,036	584	1,115	68	63,669
1975	20,807	12,949	27,057	611	1,143	78	62,645
1976	21,345	13,465	31,067	613	1,197	85	67,772
1977	21,774	13,924	32,254	612	1,180	101	69,345
1978	21,964	14,112	33,182	610	1,213	99	71,180
1979	22,085	14,631	32,907	625	1,280	121	71,649

SOURCE: Edison Electric Insitute, Statistical Yearbook of the Electric Utility Industry, 1961 through 1975 (New York, N.Y.: annually), Table 22-S (1975 data); and Edison Electric Institute, special release (1976, 1977, 1978, and 1979 data).

TABLE XIX-27. SALES OF ELECTRIC ENERGY TO INDUSTRIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1970-1979

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	2,087	2,046	2,087	2,115	2,220	2,243	2,186	2,268	2,197	1,877	1,809	2,046
1971	2,180	2,289	2,225	2,225	2,299	2,332	2,222	2,288	2,342	2,357	2,313	2,220
1972	2,215	2,437	2,372	2,443	2,495	2,784	2,395	2,508	2,584	2,662	2,655	2,524
1973	2,568	2,734	2,659	2,749	2,748	2,784	2,888	2,774	2,907	2,853	2,754	2,495
1974	2,364	2,418	2,349	2,467	2,499	2,632	2,553	2,669	2,709	2,744	2,631	2,227
1975	2,184	2,272	2,208	2,196	2,305	2,379	2,395	2,570	2,622	2,637	2,560	2,472
1976	2,498	2,641	2,750	2,784	2,748	2,881	2,847	2,827	2,883	2,768	2,827	2,745
1977	2,622	2,760	2,846	2,814	2,956	3,002	2,869	3,020	3,002	2,761	2,930	2,761
1978	2,756	2,754	2,773	2,966	2,970	3,063	2,971	3,094	3,118	3,190	3,055	2,899
1979	3,031	2,995	3,162	2,903	3,073	3,115	2,987	2,900	2,880	2,868	2,712	2,516
						United States						
1970	46,440	45,750	47,313	47,003	48,153	49,226	48,433	49,077	49,176	48,506	46,952	47,275
1971	47,501	47,421	48,844	48,792	49,334	50,202	49,310	49,262	50,214	50,130	49,638	49,062
1972	50,163	50,151	51,474	51,406	52,956	57,498	52,495	54,611	55,218	55,744	54,938	53,428
1973	55,274	54,591	55,866	55,937	56,838	57,368	57,152	58,865	59,178	60,514	58,433	56,070
1974	55,754	54,978	55,999	56,497	57,386	58,077	57,899	59,803	60,366	60,053	57,361	53,878
1975	54,280	54,328	54,437	52,526	54,767	55,841	55,525	57,868	58,619	58,815	58,223	57,433
1976	57,463	58,228	60,516	59,967	61,271	62,920	62,657	64,184	64,653	64,208	63,106	62,842
1977	61,481	60,439	63,294	63,278	65,418	66,064	64,622	66,300	66,362	66,295	64,833	63,906
1978	64,300	60,817	61,524	63,129	66,746	69,098	67,397	69,402	70,067	71,259	69,702	67,767
1979	67,956	66,847	68,770	68,777	70,421	70,968	69,938	71,058	70,075	71,444	69,787	67,283

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly, various issues).

TABLE XIX-28. SALES OF ELECTRIC ENERGY TO RESIDENTIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1970-1979

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	1,593	1,581	1,470	1,458	1,284	1,260	1,350	1,422	1,400	1,389	1,377	1,521
1971	1,692	1,715	1,609	1,509	1,360	1,352	1,418	1,478	1,492	1,495	1,451	1,598
1972	1,793	1,812	1,697	1,647	1,449	1,527	1,503	1,587	1,595	1,522	1,603	1,763
1973	1,886	1,865	1,751	1,625	1,504	1,515	1,596	1,716	1,810	1,562	1,649	1,767
1974	1,977	1,837	1,734	1,631	1,538	1,523	1,645	1,745	1,687	1,558	1,589	1,888
1975	2,056	1,739	1,797	1,741	1,512	1,559	1,796	1,863	1,719	1,608	1,562	1,901
1976	2,225	1,801	1,827	1,612	1,578	1,636	1,767	1,792	1,666	1,618	1,700	2,100
1977	2,329	1,886	1,856	1,631	1,574	1,632	1,814	1,905	1,721	1,240	1,630	2,058
1978	2,296	1,874	1,908	1,708	1,602	1,657	1,740	1,828	1,821	1,758	1,702	1,964
1979	2,326	1,932	1,924	1,710	1,644	1,644	1,769	1,883	1,735	1,624	1,726	1,969
						United States						
1970	42,544	40,036	37,303	34,921	32,896	35,165	41,993	44,852	44,787	38,611	34,730	39,161
1971	44,554	43,166	40,654	37,477	34,672	38,494	47,000	46,413	46,245	40,972	38,017	41,950
1972	46,251	45,593	43,537	40,428	38,058	45,002	47,763	51,752	51,068	44,384	41,667	47,049
1973	52,840	49,601	46,315	41,821	39,825	44,967	54,123	56,742	56,210	47,207	43,181	46,399
1974	52,846	47,832	46,154	43,294	41,215	46,596	53,435	56,558	53,252	44,177	42,773	50,368
1975	55,546	50,219	47,968	46,883	41,077	45,766	53,972	57,291	54,362	43,024	42,054	50,213
1976	60,126	54,264	47,060	43,563	41,036	44,157	53,671	57,255	53,460	44,762	46,675	56,750
1977	65,332	61,424	50,859	44,414	41,568	48,419	60,969	62,821	57,248	48,741	44,959	54,919
1978	65,547	63,936	58,194	46,928	43,637	50,511	61,327	63,434	61,584	51,108	47,220	57,058
1979	69,912	67,470	58,806	49,647	45,378	49,109	58,064	64,168	59,251	49,430	49,480	58,437

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly, various issues).

TABLE XIX-29. SALES OF ELECTRIC ENERGY TO COMMERCIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1970-1979

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	902	882	895	877	847	896	936	948	945	915	865	897
1971	934	936	943	899	877	915	1,022	982	991	976	939	957
1972	1,016	1,009	1,008	973	937	1,084	1,057	1,031	1,061	1,024	1,030	1,053
1973	1,091	1,083	1,087	1,015	1,021	1,081	1,145	1,200	1,208	1,091	1,100	1,081
1974	1,081	1,057	1,036	997	984	1,041	1,114	1,178	1,134	1,056	1,053	1,104
1975	1,161	1,033	1,075	1,044	998	1,108	1,220	1,231	1,098	1,069	1,050	1,130
1976	1,208	1,079	1,105	1,046	1,076	1,130	1,264	1,210	1,207	1,113	1,086	1,252
1977	1,313	1,124	1,167	1,087	1,142	1,203	1,282	1,303	1,188	743	1,101	1,248
1978	1,300	1,147	1,176	1,098	1,084	1,217	1,249	1,338	1,290	1,215	1,138	1,243
1979	1,370	1,206	1,269	1,165	1,179	1,253	1,293	1,352	1,223	1,227	1,178	1,271
						United States						
1970	24,129	23,753	23,420	23,238	24,111	26,126	28,086	29,051	28,929	26,703	24,339	24,776
1971	25,881	25,683	25,277	24,889	24,916	27,562	30,727	30,422	30,710	28,735	27,100	27,005
1972	27,888	27,929	27,846	27,750	27,981	33,142	32,100	33,516	33,447	30,927	29,366	29,689
1973	31,182	30,445	30,100	29,038	30,060	33,194	36,147	36,820	36,711	33,289	31,453	29,829
1974	30,608	29,542	29,310	28,986	29,876	32,800	35,229	36,414	35,830	32,112	30,968	31,757
1975	33,026	31,459	31,194	31,335	30,926	34,665	37,631	38,576	37,325	32,817	31,608	32,596
1976	34,955	33,583	32,273	31,813	32,347	35,130	39,026	39,517	38,503	34,388	33,372	35,579
1977	37,598	36,105	34,249	33,180	34,291	37,658	41,863	42,483	41,062	36,655	34,075	35,714
1978	37,942	37,286	36,201	33,484	33,896	38,624	42,839	43,694	42,935	38,354	35,864	37,650
1979	40,200	39,670	37,938	35,731	36,259	39,174	42,528	43,915	42,416	38,750	36,656	37,952

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly, various issues).

TABLE XIX-30. SALES OF ELECTRIC ENERGY TO ALL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1970-1979

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1970	4,764	4,699	4,639	4,638	4,543	4,581	4,656	4,835	4,727	4,359	4,228	4,644
1971	4,995	5,139	4,964	4,819	4,737	4,800	4,871	4,971	5,041	5,043	4,901	4,962
1972	5,222	5,468	5,279	5,236	5,075	5,575	5,157	5,332	5,446	5,405	5,484	5,528
1973	5,736	5,879	5,681	5,580	5,456	5,560	5,839	5,910	6,152	5,708	5,687	5,530
1974	5,610	5,521	5,308	5,290	5,216	5,379	5,541	5,833	5,747	5,578	5,479	5,364
1975	5,613	5,152	5,188	5,189	4,914	5,145	5,521	5,780	5,550	5,432	5,291	5,634
1976	6,072	5,643	5,799	5,563	5,509	5,761	5,993	5,954	5,881	5,614	5,733	6,227
1977	6,400	5,892	5,992	5,647	5,780	5,955	6,089	6,352	6,040	4,799	5,791	6,224
1978	6,492	5,903	5,983	5,892	5,771	6,052	6,084	6,393	6,364	6,293	6,024	6,252
1979	6,878	6,266	6,490	5,904	6,019	6,156	6,181	6,267	5,974	5,856	5,752	5,898
						United States						
1970	117,190	113,488	111,980	109,023	109,074	114,474	122,584	127,134	127,067	117,946	110,124	115,434
1971	122,224	120,439	118,956	115,212	112,985	120,447	131,366	130,424	131,569	124,180	119,054	122,450
1972	128,766	128,210	127,366	123,946	123,389	140,347	136,851	144,504	144,452	135,712	130,690	135,012
1973	144,505	139,546	137,102	131,366	131,361	140,293	152,562	157,481	157,310	146,042	138,142	137,199
1974	144,203	137,060	136,157	133,387	133,162	142,113	151,528	157,844	154,431	141,135	136,071	140,978
1975	148,097	141,550	139,237	135,481	132,174	141,657	152,771	159,444	156,284	140,400	137,861	146,149
1976	158,903	151,949	145,839	140,728	140,123	147,550	161,224	166,792	162,750	148,778	148,758	160,798
1977	170,685	163,738	154,560	146,297	146,890	157,741	173,384	176,896	170,619	157,673	149,754	160,606
1978	174,372	168,291	161,950	148,883	149,914	163,981	177,607	182,666	181,015	166,722	159,125	168,709
1979	184,757	180,179	171,515	159,743	157,688	165,256	176,495	185,519	178,220	165,721	162,096	169,815

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly, various issues).

TABLE XIX-31. MICHIGAN ELECTRIC UTILITY STATISTICS: 1979

Company	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (kw)	Total assets[a] ($000)
Privately owned utilities					
Alpena Power Company	14,169	10,170	257,762	57,130	9,015
Consumers Power Company	1,297,117	1,088,450	25,939,501	4,613,622	4,670,780
Detroit Edison Company	1,741,580	1,560,249	35,327,243	6,829,000	4,550,859
Edison Sault Electric Co	15,240	9,411	351,410	81,612	17,856
Indiana & Michigan Electric[b]	74,193	54,265	1,710,824	(b)	(b)
Lake Superior Dist. Pwr.[b]	10,426	4,668	114,227	(b)	(b)
Michigan Power Company	28,210	22,805	568,984	115,117	51,530
Upper Peninsula Power Company	58,904	31,803	641,566	140,306	60,418
Wisconsin Elec. Power Co.[b]	21,784	17,889	530,956	(b)	(b)
Wisconsin Public Service Corporation[b]	7,558	4,920	152,042	(b)	(b)
Rural electric cooperatives					
Alger-Delta Co-op	6,627	2,371	38,323	9,179	4,479
Cherryland R.E.C.	14,787	6,613	113,192	24,720	9,624
Cloverland Elec. Co-op	11,758	4,008	105,923	20,300	11,991
Fruit Belt Elec. Co-op	18,632	9,652	231,003	60,738	13,184
O & A Electric Co-op	20,293	7,865	122,368	29,450	10,650
Oceana Electric Co-op	7,600	3,009	51,162	11,670	2,699
Ontonagon County REA	3,137	1,086	17,495	4,099	1,973
Presque Isle	22,193	7,906	118,302	27,787	13,928
Southeastern Mich. REA	3,500	1,954	35,242	8,308	3,212
Thumb Electric Co-op	8,916	5,000	84,226	21,747	9,431
Top O'Michigan REA	31,243	13,044	207,689	49,813	22,636
Tri-county Electric Co-op	15,315	8,037	131,867	29,590	8,361
Western Mich. Electric Co-op	9,073	2,701	38,732	10,794	4,124

SOURCE: Michigan Public Service Commission, special release.

a. Net utility plant.

b. These utilities operate in more than one state, and the peak demand and total assets for Michigan are not given.

TABLE XIX-32. NUMBER OF NATURAL GAS DISTRIBUTION UTILITY CUSTOMERS IN MICHIGAN, BY CLASS OF SERVICE: 1962-1977

(In thousands)

Year	Residential	Commercial	Industrial	Other	Total
1962	1,449.5	119.4	7.3	(L)	1,542.0
1963	1,486.3	123.2	7.4	(L)	1,616.9
1964	1,535.2	128.6	7.8	(L)	1,671.6
1965	1,590.5	134.2	8.2	(L)	1,732.9
1966	1,653.3	139.5	8.8	(L)	1,801.6
1967	1,707.1	143.9	9.3	(L)	1,860.3
1968	1,758.1	148.6	9.7	(L)	1,916.4
1969	1,810.3	153.7	9.9	(L)	1,973.9
1970	1,850.9	157.2	10.4	(L)	2,018.5
1971	1,907.0	161.5	10.0	(L)	2,079.2
1972	1,946.7	168.7	10.6	(L)	2,126.0
1973	1,984.4	174.6	10.9	(L)	2,169.9
1974	2,023.3	178.1	10.8	(L)	2,212.2
1975	2,048.7	175.4	10.4	(L)	2,234.5
1976	2,069.7	165.3	9.4	(L)	2,244.4
1977	2,100.7	159.3	9.0	(L)	2,269.1

SOURCE: American Gas Association, Gas Facts, 1961 through 1977 (Arlington, Va.: annually), Table 58 (1977).

(L): Less than 50 customers.

TABLE XIX-33. TOTAL GAS REVENUES OF NATURAL GAS DISTRIBUTION UTILITIES IN MICHIGAN, BY CLASS OF SERVICE: 1962-1977

(In millions of dollars)

Year	Residential	Commercial	Industrial	Other	Total
1962	232	55	71	1	359
1963	242	60	76	(L)	377
1964	250	64	86	(L)	399
1965	267	71	96	(L)	434
1966	281	79	112	(L)	480
1967	298	88	119	(L)	505
1968	308	94	128	(L)	531
1969	328	104	156	3	591
1970	350	115	178	8	651
1971	362	129	205	7	703
1972	404	158	231	6	799
1973	394	169	245	5	813
1974	480	228	327	8	1,044
1975	550	303	404	12	1,269
1976	690	401	519	2	1,612
1977	784	423	530	8	1,746

SOURCE: American Gas Association, Gas Facts, 1961 through 1977 (Arlington, Va.: annually), Table 79 (1977).
(L): Less than $500,000.

TABLE XIX-36. QUANTITY OF SELECTED, PURCHASED FUELS USED FOR HEAT AND POWER IN MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1971 AND 1974-1977

Fuel	1971	1974	1975	1976	1977
Distillate fuel oil[a]					
Michigan	1,946	2,244	2,242	2,680	1,991
United States	104,941	124,357	105,296	112,379	103,013
Percentage[b]	1.9	1.8	2.1	2.4	1.9
Residual fuel oil[a]					
Michigan	2,574	3,362	2,491	4,364	5,875
United States	140,726	160,765	177,407	207,620	241,990
Percentage[b]	1.8	2.1	1.4	2.1	2.4
Coal[c]					
Michigan	6,031	4,410	3,883	4,507	4,535
United States	61,393	47,790	44,623	47,308	49,348
Percentage[b]	9.8	9.2	8.7	9.5	9.2
Coke[d]					
Michigan	198	279	235	274	631
United States	13,743	14,690	12,659	14,938	14,700
Percentage[b]	1.4	1.9	1.9	1.8	4.3
Natural gas[e]					
Michigan	231,000	242,000	223,000	251,100	236,400
United States	6,454,400	6,340,100	5,806,500	5,924,600	5,517,400
Percentage[b]	3.6	3.8	3.8	4.2	4.3

SOURCE: Adapted from Bureau of the Census, U.S. Census of Manufactures, 1972, Special Report Series, Fuels and Electric Energy Consumed (Washington, D.C.: 1973), MC72(SR)-6, Table 4; Bureau of the Census, Annual Survey of Manufactures, 1976, Fuels and Electric Energy Consumed (Washington, D.C.: 1978), M76(AS)-4P, Table 4; and similar documents for 1974, 1975, and 1977.

a. Distillate and residual, thousands of barrels.

b. Michigan as a percentage of United States.

c. Bituminum, lignite, and anthracite, in thousands of tons.

d. Thousands of tons. Includes breeze.

e. Natural, manufactured, and mixed, in thousands of cubic feet.

TABLE XIX-34. VOLUME OF NATURAL GAS SALES FOR CONSUMPTION BY MICHIGAN UTILITIES: 1979

(Millions of cubic feet)

Utility	Residential			Commercial			Industrial total
	Nonheat	Heat	Total	Nonheat	Heat	Total	
Battle Creek Gas Company	136,283	3,778,973	3,915,256	138,258	1,940,565	2,078,823	4,491,452
Citizens Gas Fuel Company	38,668	1,275,948	1,314,616	40,170	613,159	653,329	1,230,264
Consumers Power Company	2,152,654	166,757,032	168,909,686	3,246,184	59,803,985	63,050,169	81,100,619
Lake Superior District Power	2,171	416,428	418,599	95,695	241,358	337,053	124,400
Michigan Consolidated Gas Company	3,009,338	176,026,561	179,035,899	6,018,945	98,820,254	104,839,199	122,822,043
Michigan Gas Utilities Co.	168,903	13,769,044	13,937,947	202,315	5,686,602	5,888,917	15,791,774
Michigan Power Company	50,666	8,309,131	8,359,797	114,734	5,309,711	5,424,445	10,039,639
Peninsular Gas Company	5,672	424,124	429,796	2,259	244,973	247,232	14,646
Southeastern Mich. Gas Company	54,893	8,652,039	8,706,932	121,516	4,014,550	4,136,066	2,518,905
Wisconsin Public Service Co.	119,466	5,645,639	5,765,105	113,081	883,260	996,341	5,322,391
TOTAL	5,738,714	385,054,919	390,793,633	10,093,157	177,558,417	187,651,574	243,456,133

SOURCE: Michigan Public Service Commission, special release.

TABLE XIX-35. NUMBER OF NATURAL GAS CUSTOMERS OF MICHIGAN UTILITIES: 1979 AVERAGE

Utility	Residential			Commercial			Industrial total
	Nonheat	Heat	Total	Nonheat	Heat	Total	
Battle Creek Gas Company	3,723	23,330	27,053	244	1,872	2,116	41
Citizens Gas Fuel Company	972	7,319	8,291	63	735	798	27
Consumers Power Company	51,981	946,227	998,208	1,839	62,748	64,587	6,923
Lake Superior District Power	59	2,770	2,829	35	356	391	8
Mich. Consolidated Gas Company	58,458	904,944	963,402	5,881	64,311	70,192	1,041
Michigan Gas Utilities Co.	4,224	84,630	88,854	421	7,692	8,113	608
Michigan Power Company	1,402	54,405	55,807	248	6,159	6,407	417
Peninsular Gas Company	281	2,326	2,607	17	246	263	1
Southeastern Mich. Gas Company	1,568	53,580	55,148	170	4,612	4,782	90
Wisconsin Public Service Co.	441	3,624	4,065	30	254	284	85
TOTAL	123,109	2,083,155	2,206,264	8,948	148,985	157,933	9,241

SOURCE: Michigan Public Service Commission, special release.

TABLE XIX-37. KILOWATT-HOURS EQUIVALENT AND TOTAL COST OF PURCHASED FUELS FOR HEAT AND POWER IN MANUFACTURING IN MICHIGAN AND THE UNITED STATES: 1971-1977

Year	Kilowatt-hours equivalent[a] (billions)		Total cost ($ millions)	
	Michigan	United States	Michigan	United States
1971	149.3	3,332.4	300.4	5,360.9
1972	n.a.	n.a.	348.2	6,005.9
1973	n.a.	n.a.	391.2	7,008.6
1974	146.9	3,307.6	535.3	10,995.1
1975	125.3	2,936.3	617.5	12,904.5
1976	137.0	3,072.1	732.8	15,508.0
1977	n.a.	n.a.	916.7	18,152.1

SOURCE: Bureau of the Census, U.S. Census of Manufactures, 1972, Special Report Series, Fuels and Electric Energy Consumed (Washington, D.C.: 1973), MC72(SR)-6, Tables 3 and 4; Bureau of the Census, Annual Survey of Manufactures, 1977, Fuels and Electric Energy Consumed, M77(AS)-4P (Washington, D.C.: 1979), and similar documents for previous years.

a. The quantities of fuels purchased were converted to kilowatt-hour equivalents on the basis of coal, 7,677 kilowatt-hours per short ton; coke, 7,618 kilowatt-hours per short ton; distillate fuel oil, 1,707 kilowatt-hours per 42 gallon barrel; residual fuel oil, 1,842 kilowatt-hours per million cubic feet; and other fuels, 170 kilowatt-hours per dollar cost.
n.a.: not available.

TABLE XIX-38. SOURCES OF BITUMINOUS COAL AND LIGNITE FOR MICHIGAN: 1976 AND 1978

Source	Thousands of tons		Percentage of total	
	1976	1978	1976	1978
Eastern Kentucky	9,220.0	10,402.0	30.9	37.7
Ohio	8,141.0	5,248.0	27.4	19.0
Northern W. Virginia	5,382.0	4,056.0	18.1	14.7
Montana	2,887.0	3,407.0	9.7	12.3
Western Kentucky	1,354.0	422.0	4.5	1.5
Southern W. Virginia	1,189.0	1,014.0	4.0	3.7
Pennsylvania	787.0	2,094.0	2.6	7.6
Other	845.0	965.0	2.8	3.5
TOTAL	29,805.0	27,608.0	100.0	100.0

SOURCE: Michigan Energy Administration, special release.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Alcona	1977	47,890	245	4,935	1,959
	1978	48,940	247	4,874	2,321
	1979	50,240	263	n.a.	n.a.
Alger	1977	73,270	387	6,199	2,367
	1978	79,180	405	6,288	1,466
	1979	82,860	436	n.a.	n.a.
Allegan	1977	551,370	4,465	34,093	13,133
	1978	574,780	4,801	33,031	13,364
	1979	613,990	6,926	n.a.	n.a.
Alpena	1977	127,840	3,090	14,709	7,922
	1978	122,570	3,313	15,026	7,463
	1979	99,908	3,310	n.a.	n.a.
Antrim	1977	94,920	515	13,326	4,333
	1978	102,520	535	15,500	3,913
	1979	105,070	551	n.a.	n.a.
Arenac	1977	81,080	337	13,073	4,218
	1978	81,990	367	13,705	1,984
	1979	84,600	392	n.a.	n.a.
Baraga	1977	61,400	651	4,113	1,013
	1978	79,340	647	5,330	1,165
	1979	61,480	669	n.a.	n.a.
Barry	1977	210,880	2,132	25,912	9,868
	1978	195,250	1,881	21,524	10,214
	1979	217,950	1,821	n.a.	n.a.
Bay	1977	789,470	11,598	39,568	11,186
	1978	855,530	13,184	50,886	13,288
	1979	858,550	11,352	n.a.	n.a.
Benzie	1977	66,590	599	7,392	2,302
	1978	69,000	602	8,667	3,911
	1979	71,250	635	n.a.	n.a.
Berrien	1977	1,706,940	13,339	86,437	37,138
	1978	1,678,080	13,669	81,832	36,508
	1979	1,673,020	13,278	n.a.	n.a.
Branch	1977	274,450	2,661	25,170	14,046
	1978	281,860	2,680	23,940	11,478
	1979	290,980	2,845	n.a.	n.a.
Calhoun	1977	1,315,830	10,895	99,309	51,993
	1978	1,444,630	11,771	92,660	44,604
	1979	1,358,290	13,383	n.a.	n.a.
Cass	1977	359,350	2,294	22,147	8,663
	1978	385,190	2,194	21,771	5,945
	1979	374,460	2,346	n.a.	n.a.
Charlevoix	1977	235,220	1,073	11,251	4,637
	1978	239,660	1,235	7,877	5,420
	1979	232,560	1,175	n.a.	n.a.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Cheboygan	1977	164,790	1,401	14,575	9,266
	1978	175,030	1,151	16,047	3,493
	1979	184,750	1,045	n.a.	n.a.
Chippewa	1977	197,830	1,339	20,562	14,032
	1978	183,270	1,269	17,277	9,073
	1979	178,670	1,295	n.a.	n.a.
Clare	1977	125,530	740	18,034	5,512
	1978	127,090	776	20,433	6,636
	1979	133,600	778	n.a.	n.a.
Clinton	1977	255,130	2,346	21,329	9,987
	1978	257,880	2,364	21,795	8,110
	1979	266,700	2,413	n.a.	n.a.
Crawford	1977	79,630	448	18,324	3,129
	1978	82,470	462	14,435	3,533
	1979	85,890	463	n.a.	n.a.
Delta	1977	522,380	8,257	23,229	13,572
	1978	515,350	8,457	20,028	7,374
	1979	530,830	8,365	n.a.	n.a.
Dickinson	1977	395,700	2,930	14,390	7,287
	1978	387,350	3,099	13,024	6,929
	1979	423,520	3,279	n.a.	n.a.
Eaton	1977	555,340	6,296	41,044	11,575
	1978	574,590	6,751	31,645	8,530
	1979	582,760	6,270	n.a.	n.a.
Emmet	1977	238,010	1,304	13,625	3,937
	1978	233,760	1,340	12,036	3,801
	1979	245,670	1,361	n.a.	n.a.
Genesee	1977	3,737,350	33,654	198,432	45,622
	1978	3,766,220	35,332	180,436	32,863
	1979	3,741,360	34,311	n.a.	n.a.
Gladwin	1977	89,090	385	7,741	2,768
	1978	92,980	375	14,113	3,039
	1979	97,510	379	n.a.	n.a.
Gogebic	1977	128,940	744	9,054	4,879
	1978	123,040	808	5,614	5,297
	1979	132,980	867	n.a.	n.a.
Grand Traverse	1977	316,710	3,578	48,557	9,504
	1978	336,960	4,007	38,105	11,070
	1979	353,520	4,092	n.a.	n.a.
Gratiot	1977	327,360	3,639	25,664	11,747
	1978	334,040	3,535	20,762	12,510
	1979	329,790	2,354	n.a.	n.a.
Hillsdale	1977	257,710	2,194	21,315	9,503
	1978	263,770	2,166	21,333	10,478
	1979	268,400	2,534	n.a.	n.a.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Houghton	1977	161,410	1,493	15,166	9,720
	1978	165,200	1,571	17,181	11,505
	1979	172,950	1,527	n.a.	n.a.
Huron	1977	245,540	1,630	23,296	18,209
	1978	258,780	1,754	21,417	18,109
	1979	263,290	2,038	n.a.	n.a.
Ingham	1977	2,436,330	18,816	172,414	23,125
	1978	2,483,800	20,435	165,442	18,580
	1979	2,576,790	19,770	n.a.	n.a.
Ionia	1977	295,750	3,182	24,080	6,448
	1978	302,010	3,221	23,777	7,937
	1979	310,750	3,136	n.a.	n.a.
Iosco	1977	170,870	1,646	12,215	3,090
	1978	170,870	1,729	13,677	4,239
	1979	180,430	1,791	n.a.	n.a.
Iron	1977	84,540	859	6,429	3,934
	1978	77,250	866	7,143	3,155
	1979	78,920	904	n.a.	n.a.
Isabella	1977	214,510	2,561	26,723	6,231
	1978	218,280	2,559	24,816	8,007
	1979	224,560	2,552	n.a.	n.a.
Jackson	1977	1,030,780	12,366	69,386	18,070
	1978	1,060,220	13,716	81,304	29,720
	1979	1,087,810	13,485	n.a.	n.a.
Kalamazoo	1977	2,047,350	18,115	94,213	32,398
	1978	2,074,630	25,742	94,892	27,423
	1979	2,125,760	25,884	n.a.	n.a.
Kalkaska	1977	56,070	228	8,853	1,771
	1978	62,580	249	9,060	2,377
	1979	68,710	280	n.a.	n.a.
Kent	1977	2,762,440	40,750	245,054	73,012
	1978	2,831,080	43,440	259,781	73,857
	1979	2,961,360	43,645	n.a.	n.a.
Keweenaw	1977	16,080	0	144	756
	1978	15,870	0	447	1,039
	1979	15,780	0	n.a.	n.a.
Lake	1977	49,500	0	4,696	757
	1978	51,550	0	3,850	875
	1979	52,290	0	n.a.	n.a.
Lapeer	1977	344,470	2,538	27,578	6,801
	1978	363,440	4,642	25,684	3,515
	1979	387,640	2,681	n.a.	n.a.
Leelanau	1977	88,560	94	9,536	2,497
	1978	90,050	87	22,551	3,945
	1979	96,180	104	n.a.	n.a.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Lenawee	1977	585,370	5,794	48,911	15,400
	1978	604,140	5,979	37,332	17,429
	1979	616,060	6,124	n.a.	n.a.
Livingston	1977	519,020	4,085	35,934	17,662
	1978	542,700	4,320	42,767	13,903
	1979	565,130	4,527	n.a.	n.a.
Luce	1977	48,440	333	5,257	2,521
	1978	47,900	304	5,416	2,910
	1979	47,180	345	n.a.	n.a.
Mackinac	1977	73,470	166	11,678	6,064
	1978	78,470	155	8,368	3,426
	1979	85,340	193	n.a.	n.a.
Macomb	1977	4,774,740	49,826	359,148	70,071
	1978	4,905,140	54,231	400,510	63,907
	1979	4,921,050	51,996	n.a.	n.a.
Manistee	1977	280,450	7,692	17,304	5,536
	1978	282,470	8,214	11,384	4,085
	1979	293,880	8,929	n.a.	n.a.
Marquette	1977	503,580	21,103	41,446	38,321
	1978	580,990	17,168	63,182	23,659
	1979	645,970	17,531	n.a.	n.a.
Mason	1977	249,510	5,583	17,716	5,824
	1978	273,540	7,850	19,563	9,066
	1979	293,890	9,396	n.a.	n.a.
Mecosta	1977	157,080	2,758	18,109	2,630
	1978	159,830	1,872	15,865	2,447
	1979	169,730	1,842	n.a.	n.a.
Menominee	1977	200,910	1,640	14,612	5,222
	1978	208,100	1,676	17,168	6,094
	1979	218,490	1,743	n.a.	n.a.
Midland	1977	1,389,790	11,802	21,520	5,622
	1978	1,355,440	11,271	24,786	8,752
	1979	1,510,330	12,654	n.a.	n.a.
Missaukee	1977	47,550	182	2,842	744
	1978	49,340	179	3,291	821
	1979	52,410	181	n.a.	n.a.
Monroe	1977	990,590	10,616	49,364	56,586
	1978	979,600	10,937	63,067	57,313
	1979	964,990	10,826	n.a.	n.a.
Montcalm	1977	316,690	2,792	24,765	9,798
	1978	319,280	2,987	26,908	9,422
	1979	333,040	2,898	n.a.	n.a.
Montmorency	1977	29,540	0	5,238	2,491
	1978	31,920	0	6,091	2,003
	1979	32,970	0	n.a.	n.a.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Muskegon	1977	1,362,860	15,464	61,133	15,043
	1978	1,422,070	16,224	70,385	17,686
	1979	1,482,530	16,282	n.a.	n.a.
Newaygo	1977	173,050	1,186	11,357	8,194
	1978	179,140	1,412	11,512	4,109
	1979	183,500	1,340	n.a.	n.a.
Oakland	1977	7,072,550	75,371	653,217	159,079
	1978	7,202,130	82,855	659,230	148,808
	1979	7,360,350	80,740	n.a.	n.a.
Oceana	1977	107,920	855	10,456	3,511
	1978	107,830	911	6,034	1,457
	1979	113,230	956	n.a.	n.a.
Ogemaw	1977	119,860	470	9,188	2,432
	1978	120,710	484	5,533	2,530
	1979	131,500	495	n.a.	n.a.
Ontonagon	1977	333,510	3,071	5,964	1,818
	1978	372,370	2,022	5,175	2,142
	1979	423,380	1,628	n.a.	n.a.
Osceola	1977	118,390	920	7,127	3,574
	1978	123,890	914	10,066	2,979
	1979	127,250	913	n.a.	n.a.
Oscoda	1977	43,100	0	4,514	3,767
	1978	44,380	0	5,986	4,128
	1979	44,830	0	n.a.	n.a.
Otsego	1977	102,290	3,353	19,524	5,329
	1978	137,080	3,533	16,242	3,177
	1979	151,380	2,167	n.a.	n.a.
Ottawa	1977	896,540	11,111	81,481	16,476
	1978	942,630	11,976	70,906	15,848
	1979	1,005,220	12,371	n.a.	n.a.
Presque Isle	1977	100,470	371	6,365	5,022
	1978	106,070	365	5,063	2,780
	1979	108,300	379	n.a.	n.a.
Roscommon	1977	99,040	908	11,875	4,345
	1978	102,650	942	12,752	4,168
	1979	106,380	955	n.a.	n.a.
Saginaw	1977	2,833,720	23,106	115,042	34,293
	1978	2,836,630	24,771	120,045	26,758
	1979	2,803,010	23,287	n.a.	n.a.
St. Clair	1977	1,173,950	8,297	60,364	27,614
	1978	1,181,670	9,172	60,740	37,135
	1979	1,156,580	9,166	n.a.	n.a.
St. Joseph	1977	466,250	3,917	44,492	10,098
	1978	468,190	4,283	46,659	10,628
	1979	504,080	4,429	n.a.	n.a.

TABLE XIX-39. ESTIMATED ENERGY CONSUMPTION BY FUEL TYPE IN MICHIGAN COUNTIES: 1977, 1978, AND 1979 (cont.)

County	Year	Electric power (1,000 kwh)[a]	Natural gas (Mmcf)[b]	Motor gasoline (1,000 gal.)	Middle distillates (1,000 gal.)
Sanilac	1977	236,490	831	21,429	10,573
	1978	240,130	1,386	23,689	9,501
	1979	242,060	1,197	n.a.	n.a.
Schoolcraft	1977	152,070	744	4,573	1,790
	1978	155,190	242	3,514	1,081
	1979	164,040	482	n.a.	n.a.
Shiawassee	1977	344,180	3,699	24,185	10,096
	1978	356,630	4,127	24,196	12,650
	1979	362,420	4,064	n.a.	n.a.
Tuscola	1977	288,470	1,826	35,267	16,421
	1978	288,190	1,925	16,097	11,250
	1979	292,490	1,996	n.a.	n.a.
Van Buren	1977	370,860	3,859	31,730	13,546
	1978	394,450	4,100	35,035	10,962
	1979	399,990	4,152	n.a.	n.a.
Washtenaw	1977	2,356,200	24,440	167,051	31,633
	1978	2,444,550	24,847	186,317	51,263
	1979	2,521,500	25,042	n.a.	n.a.
Wayne	1977	19,963,750	314,774	1,252,216	308,681
	1978	20,060,250	323,943	1,260,350	340,073
	1979	19,489,770	320,224	n.a.	n.a.
Wexford	1977	150,910	1,702	15,216	5,066
	1978	156,350	1,770	16,533	5,155
	1979	159,590	1,855	n.a.	n.a.
TOTAL	1977	72,425,360	853,856	4,970,902	1,486,810
	1978	73,779,460	898,781	5,075,219	1,461,885
	1979	74,418,218	890,293	n.a.	n.a.

SOURCE: Michigan Energy Information System, Energy Administration, preliminary release (1979 data).

a. Kilowatt-hours.

b. Millions of cubic feet.

n.a.: not available.

XX. WHOLESALE TRADE

The first postwar business census covered the year 1948, and subsequent censuses have been taken twice each decade. The current law authorizes the U.S. Bureau of the Census to canvass the nation's industrial and business establishments at five-year intervals in years ending in 2 and 7. These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: selling merchandise to retailers; to industrial, commercial, institutional, farm, or professional users; and to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to persons or companies classified as wholesalers. Also included are wholesale liquor establishments operated by state or local governments. The basic tabulations in this chapter do not include data for central administrative offices, captive warehouses, and other units that service or are auxiliary to wholesale establishments within the same organization.

The 1972 Census of Wholesale Trade covers all such establishments that have a payroll. Firms with payrolls were sent questionnaries for each establishment operated.

Several changes were made in the kind-of-business definitions between 1967 and 1972, with the result that comparability between the two censuses is limited. Electrical supply stores; plumbing and heating equipment dealers; farm equipment dealers; hay, grain, and feed stores; and other farm supply stores are now classified in wholesale trade. These previously were designated as retailers. In Table XX-1 the 1972 wholesale trade aggregates for the state are reported on the basis of the 1967 classification as well as the current one.

Sales reported in the Census of Wholesale Trade do not include wholesale sales incidental to other kinds of business, such as retailing or services. They do include total receipts, including accruals, of wholesale establishments, even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, retailing to households, and so forth. Refunds and allowances for merchandise returned are deducted. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments in business at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employee income taxes, Social Security taxes, union dues, and so forth.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations, but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

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TABLE XX-I. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1947, 1954, 1958, 1963, 1967, 1972, AND 1977

	Establishments with payroll							
	Number[a] (000)		Sales ($1,000,000)		Annual payroll ($1,000,000)		Paid employees[b] (000)	
Year	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.
1947[c]	8,485	243,366	6,721	188,689	319	7,991	88,725	2,382,789
1947	7,600	216,099	n.a.	n.a.	298	7,734	83,138	2,305,403
1954	9,441	250,322	10,087	233,976	479	10,868	99,793	2,590,361
1958	10,797	285,996	11,600	284,971	547	13,199	105,273	2,797,341
1963	11,635	308,177	14,055	358,386	711	18,101	113,845	3,088,706
1967	11,436	311,464	18,800	459,476	976	23,922	131,751	3,518,969
1972[d]	12,208	348,168	26,238	683,659	1,369	35,887	133,359	3,878,181
1972[e]	12,827	369,791	26,546	695,224	1,397	36,893	137,037	4,026,118
1977[e]	12,572	382,837	45,152	1,258,400	2,109	58,290	141,484	4,397,089

SOURCE: Bureau of the Census, 1977 Census of Wholesale Trade, Geographic Area Statistics, Advance Report (Washington, D.C.: 1980), WC77-A-23(A), Table 1; U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table I and 5; and Bureau of the Census, U.S. Census of Business, 1967, Wholesale Trade, Michigan (Washington, D.C.: 1969), BC67-WA24, Table 2, and similar census documents for 1963 (BC63-WA24, Table 2), 1958 (BC58-WA22, Table 101), 1954 (W-1-22, Tables 101 and 105), and 1947 (vol. 5, Michigan section, Table 101), and similar documents for the U.S.

a. Excludes establishements with no paid employment.
b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.
c. Unrevised statistics. Based upon reports from establishments with sales volume of $5,000 or over.
d. Based on 1967 Standard Industrial Classification.
e. Based on 1972 Standard Industrial Classification.

TABLE XX-2. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977

Kind of business	Year	Number of establishments[a]	Sales[b] ($000)	Annual payroll ($000)	Paid employees 12 March	Year-end inventories ($000)
			Durable goods			
Motor vehicles, auto. parts & supplies	1972	1,433	4,884,133	165,307	16,403	273,319
	1977	1,523	8,998,004	269,239	n.a.	17,798
furnishings	1977	328	709,908	42,862	n.a.	3,062
Lumber & other cons. materials	1972	637	1,385,003	73,695	6,644	61,002
	1977	594	1,539,060	87,570	n.a.	5,403
Sporting, rec., photo. hobby goods, toys, and supplies	1972	242	301,986	32,639	3,343	40,509
	1977	212	426,087	32,166	n.a.	2,290
Metals & minerals, except petroleum	1972	448	3,651,329	83,264	6,961	156,958
	1977	515	6,463,559	132,170	n.a.	7,458
Electrical goods	1972	713	1,657,664	85,325	8,016	89,624
	1977	763	2,252,456	124,987	n.a.	8,458
Hardware, plumbing, htg. equip. & supplies	1972	685	734,250	68,422	6,470	75,121
	1977	687	1,101,409	93,127	n.a.	6,375
Machinery, equip. & supplies	1972	2,853	3,490,623	334,762	30,390	327,872
	1977	3,082	6,270,130	566,178	n.a.	35,168
			Nondurable goods			
Paper & paper products	1972	340	418,785	41,309	4,111	28,484
	1977	379	757,167	62,460	n.a.	4,338
Drugs, proprietaries, & druggists' sundries	1972	110	337,672	19,349	2,023	26,394
	1977	94	455,458	20,818	n.a.	1,676
Apparel, piece good, & notions	1972	127	219,121	13,918	1,229	20,461
	1977	146	273,729	18,053	1,306	25,067
Gro. & related pro.	1972	1,248	3,815,488	171,510	17,634	115,676
	1977	1,172	5,923,574	242,140	17,550	164,726
Farm-product raw materials	1972	259	535,340	14,425	2,168	36,954
	1977	268	924,261	26,360	2,545	58,784

TABLE XX-2. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Number of establishments[a]	Sales[b] ($000)	Annual payroll ($000)	Paid employees 12 March	Year-end inventories ($000)
			Nondurable goods (cont.)			
Chemicals & allied products	1972	217	767,775	25,505	2,202	13,443
	1977	276	1,853,816	48,765	2,864	23,249
Petroleum & petroleum products	1972	1,154	1,343,267	64,901	8,118	43,940
	1977	654	3,153,807	69,973	5,611	118,973
Beer, wines, distilled alcoholic beverages	1972	409	902,828	51,753	4,396	42,376
	1977	343	1,230,378	84,787	4,705	62,462
Wholesale trade[c]	1972	9,709	11,827,818	969,517	100,493	1,087,624
	1977	12,572	45,151,519	2,108,920	141,484	2,632,028

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), WC72-A-23, Table 1; and 1977 Census of Wholesale Trade, Geographic Area Series, Advance Report (Washington, D.C.: 1980), WC77-A-23(A), Table 1.

a. Excludes establishments with no paid employment.

b. Sales taxes and finance charges were included in 1972 but not in 1977.

c. Including industry groups not shown separately.

TABLE XX-5. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in wholesale trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Dickinson	10.42	13,388	10.29	15,326
Oakland	7.81	511,129	8.38	641,410
Kent	8.24	220,842	8.14	255,702
Tuscola	7.72	13,153	7.87	15,147
Menominee	6.57	5,314	7.66	7,442
Branch	8.16	14,724	6.95	14,744
Montcalm	3.81	6,443	6.25	11,429
Genesee	5.16	180,130	5.74	222,810
Huron	6.37	8,693	5.60	9,150
Wayne	5.38	1,025,936	5.27	1,110,854
Emmet	5.77	5,687	5.20	5,795
Bay	6.01	32,345	5.10	29,692
Gratiot	4.50	7,919	4.42	8,397
Hillsdale	4.43	6,771	4.35	7,590
Wexford	4.47	4,574	4.34	4,917
Grand Traverse	4.39	12,022	4.19	13,577
Ottawa	4.67	30,846	4.17	32,912
Muskegon	4.95	39,066	4.16	36,962
Shiawassee	3.96	8,008	4.14	9,037
Isabella	3.98	7,005	4.13	8,416
Alpena	4.44	6,418	3.93	6,367
Arenac	3.36	1,253	3.83	1,381
Gogebic	3.82	2,065	3.79	2,183
Kalamazoo	3.93	52,123	3.77	56,300
Ingham	3.63	80,991	3.63	93,654
Berrien	3.54	32,004	3.58	35,407
Livingston	3.10	6,156	3.57	8,658
Delta	3.73	5,762	3.52	5,849
Macomb	3.38	130,941	3.49	156,332
Ionia	3.16	4,972	3.42	6,347
Ogemaw	3.44	1,360	3.40	1,544
Monroe	3.46	14,772	3.38	15,621
Osceola	2.95	1,614	3.24	1,951
Allegan	3.42	7,225	3.23	8,248
St. Clair	3.32	16,421	3.20	17,986

TABLE XX-5. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in wholesale trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Iron	5.99	2,474	3.18	1,383
Sanilac	3.18	4,161	3.18	4,676
Van Buren	3.22	5,797	3.15	6,626
Chippewa	2.25	2,726	3.12	2,992
Saginaw	3.26	49,975	3.12	53,967
Oscoda	(D)	(D)	3.12	455
St. Joseph	3.38	8,199	3.11	8,390
Jackson	3.29	26,139	3.10	27,879
Oceana	3.45	1,570	2.82	1,494
Marquette	2.90	10,035	2.75	11,358
Lapeer	2.29	4,326	2.70	5,785
Iosco	2.69	2,890	2.65	3,135
Newaygo	2.70	2,211	2.56	2,365
Antrim	2.44	1,059	2.46	1,291
Gladwin	2.74	894	2.46	913
Manistee	2.61	2,230	2.43	2,345
Mason	2.56	2,402	2.39	2,565
Lenawee	2.90	11,704	2.37	12,765
Houghton	2.25	2,423	2.10	2,464
Cass	2.91	4,042	2.07	3,432
Presque Isle	2.20	878	2.05	1,068
Clare	2.50	1,183	2.04	1,121
Mackinac	2.70	973	2.02	922
Crawford	1.27	363	1.83	552
Washtenaw	1.72	35,324	1.77	43,394
Charlevoix	2.00	1,478	1.67	1,418
Mecosta	1.70	1,519	1.36	1,369
Benzie	1.41	446	1.36	481
Alger	1.48	383	1.16	339
Midland	.51	2,782	.53	3,173
Alcona	.80	127	(D)	(D)
Baraga	(D)	(D)	(D)	(D)
Barry	2.32	2,552	(D)	(D)
Calhoun	2.97	26,177	(D)	(D)
Cheboygan	(D)	(D)	(D)	(D)

TABLE XX-5. LABOR AND PROPRIETORS' EARNINGS IN WHOLESALE TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in wholesale trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Clinton	4.45	4,542	(D)	(D)
Eaton	5.06	8,366	(D)	(D)
Kalkaska	2.72	991	(D)	(D)
Keweenaw	(D)	(D)	(D)	(D)
Lake	(D)	(D)	(D)	(D)
Leelanau	(D)	(D)	(D)	(D)
Luce	4.01	1,246	(D)	(D)
Missaukee	2.17	399	(D)	(D)
Montmorency	2.65	459	(D)	(D)
Ontonagon	(D)	(D)	(D)	(D)
Otsego	2.90	1,860	(D)	(D)
Roscommon	(D)	(D)	(D)	(D)
Schoolcraft	(D)	(D)	(D)	(D)
Michigan	4.97	2,760,422	5.01	3,148,123
United States	6.60	76,914,000	6.55	86,422,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). Thses numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

XXI. RETAIL TRADE

According to the most recent Census of Retail Trade, the ten fastest growing states in retail sales between 1972 and 1977 were Alaska, Wyoming, Nevada, Washington, Oregon, Idaho, Texas, Hawaii, Montana, and North Dakota. The slowest growing were New York, Rhode Island, Massachusetts, Connecticut, New Jersey, Delaware, Pennsylvania, Vermont, Illinois, and Maryland. Michigan was twelfth from the bottom among states, just ahead of Georgia. The Michigan figure was 55 percent, compared with a national rate of growth in retail sales of 58 percent during the five-year period.

In retail sales as a percentage of personal income, Michigan ranked 40 in both 1972 and 1977 (Table XXI-3). States that rank high on this score are those that are popular with tourists and thus are "exporters" of retail trade. Montana ranked first in 1977, followed by New Hampshire and Vermont. In addition to its popularity among vacationers, New Hampshire attracts out-of-state customers because of its low rate of tax on alcoholic beverages and because it has no sales tax. The District of Columbia, New York, Connecticut, and New Jersey were substantial "importers" of retail trade.

Retail sales as a percentage of personal income increased in nine states between 1972 and 1977: Montana, North Dakota, Nevada, Idaho, South Dakota, Nebraska, Iowa, Hawaii, and Washington. Tourism was responsible for these gains with the exception of Washington, which has benefitted from the aircraft manufacturing boom following the deep slump of orders in the eary 1970s.

Michigan had 136 inhabitants per retail trade establishment in 1977, compared with the national average of 114 (Table XXI-4). Only the District of Columbia, Maryland, and Virginia ranked higher in this regard. As one might expect, generally speaking, the more densely populated states had more inhabitants per establishment, whereas the Plains states and Vermont, New Hampshire, and Maine had fewest. Because each place in Michigan serves more people, on the average, sales per establishment amounted to $476,000 here, compared with $390,000 nationally (Table XXI-5). Only Maryland, the District of Columbia, Alaska, and Nevada exceeded the Wolverine State in this regard.

In some kinds of businesses, small merchants are becoming scarce. Others, no doubt, are growing and incorporating, thereby moving up from the ranks of the small. Some, particularly gasoline service stations, are victims of high energy prices. Still others have been affected by changing American life-styles. Among those retail businesses that are growing most slowly are cigar stores and stands, bars and other drinking places, confectionery stores, and dairy products stores. Opportunity is to be found in such high growth retail industries as book stores, game and hobby shops, sporting goods stores, retail nurseries, gift and souvenir shops, and eating places (Tables XXI-2 and XXI-3). Another trend, evident in the data, is toward large size in some kinds of retailing. This is most apparent in the gains made by large department stores at the expense of small department and variety stores. Car dealers also are tending toward bigness and are declining in number.

Both in the nation and in Michigan, between 1972 and 1977, the number of eating places increased, and there were more such establishments in 1977 than any other kind of retail business. They accounted for 7 percent of retail sales in this state (7.7 percent nationally) and increased their

share of the retail dollar during the five-year period. Michigan captures a less than proportionate share of restaurant dollars because of its greater emphasis on outdoor recreational activities. Also, many Michiganians spend restaurant dollars in other states, for example, during winter pilgrimages to Florida.

Gasoline service stations are not as numerous as restaurants, but they are responsible for a larger proportion of the retail sales dollar: 8.1 percent in Michigan and 7.8 percent nationally. Between 1972 and 1977, the number of service stations dipped sharply, but their share of the retail dollar increased owing to higher gas prices.

There were fewer grocery stores in Michigan in 1977 than there were eating places or gasoline service stations, but they took in a larger share of retail receipts than these other two categories combined: 19.1 percent. Nationally, grocery stores received 20.4 percent of all retail dollars in 1977. Between 1972 and 1977, Michigan grocers experienced a sales gain of 39 percent, compared with 58 percent nationally. There is an element of fluke in the Michigan figure; Meijer Thrifty Acres is classified as a department store chain, but it takes food sales from grocery stores. Nevertheless, the statistic signals the change in buying habits engendered by a shift in the pattern of recreational travel. Before high gasoline prices, on hot summer weekends, Michigan highways were choked with station wagons and vans. Going to the lake or a cottage meant carrying groceries from home or buying provisions at the destination. In either case, Michigan packaged food merchants could count on a larger share of the recreational dollar than they can now. Another factor is the rising proportion of small householders, particularly childless couples and singles, who frequent restaurants.

The attachment of Michiganians to automobiles is borne out in the sales data for motor vehicle dealerships. During 1972, franchised vehicle dealers accounted for 17.9 percent of retail sales in Michigan, compared to 16 percent nationally. The 1977 figures were 19.7 percent and 16.9 percent, respectively. Our fondness for new cars is also apparent in data compiled by R.L. Polk and Company: Michigan is first in new car registrations per capita. This is true even though we rank 42 in per capita new imported car registrations. Additional evidence of vehicle affection is found in the most recent consumer expenditure survey published by the Bureau of Labor Statistics. It revealed that vehicle purchases accounted for 8.9 percent of a Detroit household's total expenditures, compared with 7.4 percent for urban households in the nation as a whole.

Used car dealers do not fare well in Michigan. In much of the country, personal transportation is a necessity, regardless of income level. Many dealers in the rural South, for example, purchase used cars in the North, remove the rust, repair and paint them, and sell them to their neighbors. In states such as Michigan, the used car market is depressed because high wages enable us to favor new cars. Also, prices of the new cars available here are below the national average.

Taverns and other places that serve alcoholic beverages capture a much higher percentage of the consumer dollar in Michigan than elsewhere. Michigan's package liquor stores, in contrast, are very much below average

in this regard. Besides vying with bars and taverns, forbidden in many states, package stores here compete with liquor counters in grocery stores, also not permitted in some parts of the country, and with the state warehouses that supply them but that also sell to the general public. It seems appropriate to mention that cirrhosis of the liver is a more serious problem in Michigan than in the rest of the nation.

Buying from fresh produce stands and stores is exceptionally popular in Michigan (Table XXI-2). Garden supply stores also face a high level of demand here. Recreational boat dealers do well, having obvious advantages in the winter-water wonderland. Retailers of home furnishings and equipment other than furniture, clothing, sporting goods, and toys, vehicles (other than used cars), and gasoline, along with hardware and department stores and vending machine operators, also experience higher levels of demand here than do their counterparts nationwide. At the other extreme are retail fuel dealers (who compete in a market dominated by relatively cheap and plentiful natural gas supplied by Michigan Consolidated and Consumers Power), mail order houses (which compete with several aggressive department store chains), dairy products stores, used car dealers, stationery stores, and mobile home dealers.

The bottom line for Michigan was a retail trade sector that grew at a rate somewhat below the national average between 1972 and 1977. The main deterrent to faster growth was grocery stores. Aside from these, retailing in Michigan grew slightly more rapidly than in the nation.

During the mid-March 1977 pay period, Michigan restaurants, lunchrooms, cafeterias, refreshment places, social caterers, contract feeding businesses, and ice cream and frozen custard stands had over 142,000 paid employees, or 27 percent of the retail trade total. Between 1972 and 1977, such establishments were responsible for 75 percent of the job gain in Michigan retail trade, although they accounted for only 9 percent of the increment in retail sales volume. This was possible because food service is very labor intensive; only retail bakeries are more so, no doubt because most of them make some of their merchandise on the premises, itself a labor-intensive activity. Florists, used merchandise stores, drinking places, and confectionery stores also pay a relatively high proportion of their receipts as wages. In Michigan, candy shops include those on Mackinac Island and in St. Ignace and Mackinac City, where fudge is made before audiences of tourists (or fudgies, as they are called locally). Least labor intensive are gasoline service stations, liquor stores, and dealerships in cars, fuel oil, mobile homes, recreational vehicles, utility trailers, and fuel and ice. In these kinds of business, relatively little is done by the retailer to the product.

Department stores, the second largest kind of retail business employer, had more than 68,000 employees in 1977, compared with 60,000 in 1972. Grocery stores, which ranked second in employment in 1972, dropped to third in 1977, employing 2,000 fewer people. Gas stations, car and boat dealers, drug stores, and women's clothing stores also employ a large number of people. Together, only 8 of the 61 kinds of retail business accounted for 75 percent of all those employed in the Michigan retail trade sector.

At Michigan franchised motor vehicle dealerships selling both new and used cars, payroll per employee in 1977 averaged $14,624, or 22 percent above that in rug, carpeting, and linoleum stores, which were second in average pay. At exclusively domestic make new car dealerships, the average Michigan salary level ($14,624) was considerably above the U.S. figure ($12,664). Among dealers with only imported new car franchises, the salary per employee in Michigan was slightly below the U.S. average ($13,416 versus $13,802). Imported car dealers are heavily concentrated on the two U.S. coasts, which are high wage areas, as is Michigan. As an aside, selling cars and trucks is among the occupations in which women and ethnic minorities are fewest.

In nearly all of the top paying retail businesses, average pay in Michigan is above the national figure. In most of the low paying kinds of retailing, average pay in this state is below the U.S. norm. On balance, Michigan retail workers earn more than the national average; they also are considerably more productive. Consequently, payroll is a lesser expense in Michigan than it is nationally, in most kinds of retail business as well as in retailing overall.

Department stores were by far the largest kind of retailer in this state in 1977, averaging about $12 million in sales. They were largest nationally, too, averaging $8.7 million. Between 1972 and 1977, the average size of Michigan department stores grew by 69 percent, compared with 32 percent in the United States. The number of department stores in this state declined by 8 percent, whereas there was a 14 percent increase nationwide. No doubt, being the home of three aggressive chains--K-Mart, Hudson's, and Meijer Thrifty Acres--has been a major factor in the performance of Michigan department stores. Variety stores did not fare well in the nation, particularly in Michigan. In general, those with paid employees in this state are dwindling more rapidly than those without. Similarly, the ranks of those that are incorporated are shrinking at a faster rate than those that are not. These sketchy indicators suggest that, between 1971 and 1977, smaller variety stores, although hurt, were not as seriously affected by the growth of department stores as were the larger variety stores. These latter are located in population centers where they compete with department stores, whereas "mom-and-pop" stores still find a favorable environment in small towns.

Franchised car dealers, second in retail size in 1977, are becoming fewer, both in Michigan and nationally. In average size, this state's dealers are larger and growing faster than their U.S. counterparts. The small franchise dealership is being squeezed out, more so in the Wolverine State than in the nation. The same is not true of used car dealers. Both here and elsewhere, there was a proliferation of small used car lots between 1972 and 1977, whereas the number of larger used car dealerships declined.

Among grocery stores, a distant third in average size, the Michigan market has been affected by the very rapid increase in the number of Meijer Thrifty Acres establishments, classified as department stores, but with food departments that rival large grocery chains. Essentially, the struggle for the packaged food dollar has been a battle among titans, with smaller grocers not unscathed, but not as hard hit as larger ones.

Among kinds of business that typically are small, there were both winners and losers between 1972 and 1977. The number of restaurants, liquor stores, women's and children's clothing stores, florists, jewellers, sporting goods stores, hobby shops, camera shops, and book stores increased. The number of retail bakeries, dairy products stores, candy shops, taverns, newsstands, and fuel and ice dealers declined. Changing tastes rather than competition from large retailers seem the more likely cause of these alterations in the structure of small retail business.

In terms of county rankings, Kalkaska was far and away the leader in retail sales growth between 1972 and 1977, followed by Livingston and Crawford counties. These three, in that order, are the fastest growing in the state in population and income. In Baraga County, fourth in the ranking, and where population gains were not impressive, automobile dealerships and gasoline service stations were responsible for the sales spurt. Marquette County, ranked fifth, is the major Upper Peninsula growth center for trade and services and also is not experiencing unusual population growth. Keweenaw County (sixth) has the state's smallest economy. There are no drug stores, apparel stores, automotive dealers, furniture stores, or general merchandise stores, and only one hardware store, six gasoline service stations, eleven food stores, fourteen restaurants, and thirteen miscellaneous retail establishments. The very large percentage increase in retail sales in Keweenaw between 1972 and 1977 resulted from modest increases in the dollar volume of sales to visitors at food stores and in restaurants. Retailing in Montmorency, Oscoda, and Benzie counties was stimulated by population influx.

The number of inhabitants per retail establishment was greatest in the southern part of the state, near the population centers (Table XXI-12). Sales per establishment were highest in Macomb, Genessee, Washtenaw, Oakland, and other counties with or adjacent to large urban areas (Table XXI-13). Keweenaw and Lake counties had the lowest levels of sales per establishment. Not only do large department stores such as K-Mart and Hudson's not locate in sparsely populated areas such as these, but also the small business is even smaller than elsewhere. The average restaurant in Keweenaw had sales of $50,000 during 1977, about 75 percent below the statewide average for this kind of business.

Because of its tiny economy, few retailers find it profitable to locate in Keweenaw, preferring nearby Houghton County. Since people in Keweenaw must go to Houghton or Hancock to purchase many items, the ratio of retail sales to personal income is very low in Keweenaw. Such commuting to markets also explains the above average ratio of retail sales to personal income in Houghton County, the destination. There are similar patterns elsewhere. Cass, Barry, Clinton, and Leelanau residents are part of the markets for Berrien, Kent, Ingham, Eaton, and Grand Traverse merchants.

Emmet, Crawford, Wexford, Roscommon, Cheboygan, Ogemaw, Otsego, and several other northern Michigan counties have drawing power that extends far beyond their nearby neighbors because they contain the summer homes of residents farther south as well as attract tourists and other short-term visitors.

Wayne County posted a retail sales gain of only 35 percent, lowest in the state. When corrected for price changes, "real" retail sales in Wayne did not grow at all. Department store sales were exceedingly sluggish, gaining only 18 percent (undoubtedly a decline in real terms). Grocers fared less poorly, with a gain of 29 percent (also a real decline), perhaps partly because there were no Meijer Thrifty Acres in Wayne County in 1977. This also may be why hardware store sales grew more rapidly in Wayne than in Michigan or the nation. Almost every kind of retail business in Wayne County experienced slower than national or state rates of growth. Two exceptions were car dealerships and gasoline service stations, which were close to the national norm, indicating that many suburban residents still go to Detroit to buy cars and gasoline. This pattern is probably a by-product of commuting to work. It is likely that dealer competition is more fierce in Detroit than the suburbs, which makes prices more attractive to the consumer.

Other counties with low retail sales growth performance between 1972 and 1977 were Gogebic and Ontonagon, both in the generally depressed western U.P.; Chippewa, in the generally depressed eastern U.P.; Gratiot, suffering from several plant closures; Mason and Muskegon, generally depressed areas on the state's western shoreline; and Calhoun, also generally a depressed area.

A central business district (CBD) is the downtown business area of a central city of a Standard Metropolitan Statistical Area or another city of 50,000 or more in an SMSA. There are 13 CBDs in Michigan; the one in which retail sales grew most rapidly between 1972 and 1977 was Muskegon. That city has a new downtown mall. East Lansing had the second most rapid retail sales growth in its CBD, followed by Ann Arbor and Battle Creek. For Kalamazoo, 1972 data are not available. CBD data are shown in Table XXI-10.

The CBDs in Saginaw, Grand Rapids, and Bay City grew little; those in Lansing and Saginaw declined somewhat; and those in Flint and Detroit declined sharply. For Pontiac, the 1972 figures are not available. If they were, they would undoubtedly reveal an even sharper contraction than occurred in Detroit in the volume of business conducted downtown.

In the Detroit CBD, sales at eating places increased by almost 60 percent, compared with 26 percent in the rest of the city. Sales at bars and taverns declined by more than 20 percent, both in the CBD and the rest of Detroit. Florists, grocers, and service stations made modest sales gains in the CBD; home furnishings stores posted a 54 percent increase.

Eating places in the Flint CBD experienced moderate gain (18 percent), whereas drinking places' sales jumped by 73 percent. Sales at food stores were up 10 percent, at service stations, 25 percent.

Grand Rapids CBD bar and restaurant owners experienced declines in sales, the former by 29 percent, the latter by 19 percent. Grocers had a 347 percent gain.

Lansing's restaurants in the CBD reported a 15 percent increase. In Ann Arbor, CBD restaurant sales were up 119 percent, bar and tavern up 48 percent, and food stores up 208 percent.

The Bay City CBD had an 85 percent increase in restaurant sales, a 14 percent decrease in drinking place sales, and a 95 percent increase in gasoline service station sales.

Comparative detail for the other CBDs were not published because of the limited number of establishments in them during 1972 or 1977. Also, in the CBDs for which data were published in some detail, the figures were suppressed for a number of kinds of business due to the confidentiality rule of the Bureau of the Census. No data are released that might entail disclosure of the operations of an individual establishment or company.

The first postwar business census was for 1948. Currently, the U.S. Bureau of the Census is authorized to conduct canvasses every five years, for years ending in 2 and 7. These economic censuses of industrial and business establishments cover construction, manufacturing, mining, retail trade, selected services, selected transportation industries, and wholesale trade. Establishments are classified on the basis of major economic activity, and those primarily engaged in selling goods for personal or household consumption are grouped under retail trade. They are further classified according to kind of business, which usually reflects commodity groupings. For example, food stores include establishments primarily selling food for preparation and consumption in the home. In some cases, such as variety stores, the classification is based on variety of merchandise, price range, or manner of doing business.

Beginning in 1954, the Census of Retail Trade has excluded firms with no paid employees during the census year unless they reported sales of $2,500 or more. Firms with no paid employees were not canvassed, their sales figures and classification being obtained from income tax returns.

Several changes made in the kind-of-business definitions between 1967 and 1972 limit comparability between the two censuses. Electrical supply stores; plumbing and heating equipment dealers; farm equipment dealers; hay, grain, and feed stores; and other farm supply stores are no longer classified in retail trade, but are designated as wholesalers. Within retail trade itself there also have been several changes, such as the transfer of bedding and linen shops from miscellaneous general merchandise stores to miscellaneous home furnishings stores. In Table XXI-1 the 1972 retail trade aggregates for the state are reported on the basis of the 1967 classification as well as the current one. The 1977 figures are on the basis of the 1972 classification.

It is customary in an economic census to classify each establishment separately, irrespective of whether it is part of a larger organization. For example, each McDonald's is counted as one restaurant.

Sales reported in the Census of Retail Trade do not include retail sales incidental to other kinds of business, such as wholesaling or services. They do include total receipts, including accruals, of retail

TABLE XX-3. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN'S TEN LARGEST COUNTIES: 1972 AND 1977

County	Year	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Bay	1972	148	208,312	16,270	14,432	3,470	1,603
	1977	158	732,166	n.a.	25,738	n.a.	1,898
Genesee	1972	386	635,080	38,642	43,050	10,210	4,305
	1977	394	1,199,319	n.a.	64,912	n.a.	4,355
Ingham	1972	377	714,884	41,213	46,653	10,969	4,633
	1977	377	1,172,055	n.a.	75,382	n.a.	5,080
Jackson	1972	216	318,918	17,152	4,085	1,854	169
	1977	191	449,428	n.a.	23,309	n.a.	1,810
Kalamazoo	1972	334	429,636	33,786	35,453	8,716	3,583
	1977	340	676,551	n.a.	51,282	n.a.	3,726
Kent	1972	965	2,095,315	155,896	126,255	30,212	12,410
	1977	998	3,403,035	n.a.	202,084	n.a.	14,125
Macomb	1972	550	1,183,990	145,644	64,155	15,180	6,246
	1977	626	1,363,960	n.a.	109,103	n.a.	7,508
Oakland	1972	2,036	8,055,825	193,548	252,722	60,177	20,786
	1977	2,591	17,173,217	n.a.	507,058	n.a.	28,733
Saginaw	1972	334	462,101	44,355	35,008	8,144	3,795
	1977	322	764,786	n.a.	52,080	n.a.	3,772
Wayne	1972	3,441	9,161,725	512,997	526,852	125,058	48,738
	1977	2,802	12,271,694	n.a.	637,471	n.a.	40,481

SOURCE: Bureau of the Census 1977 Census of Wholesale Trade, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table 4; and Bureau of the Census 1977 Census of Wholesale Trade, Geographic Area Statistics, Michigan (Washington, D.C.: 1980), WC77-A-23(A), Table 2.

a. Excludes establishments with no paid employment.

n.a.: not available.

TABLE XX-4. SELECTED DATA FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN'S TEN LARGEST CITIES: 1972 AND 1977

Cities	Year	Number of establishments[a]	Sales ($1,000)	Year-end inventories[a] ($1,000)	Annual payroll ($1,000)	Payroll first quarter ($1,000)	Paid employees 12 March
Dearborn	1972	189	646,067	32,919	35,646	8,146	2,759
	1977	183	1,581,767	n.a.	46,944	n.a.	2,835
Detroit	1972	2,392	6,089,059	341,902	362,726	86,062	33,691
	1977	1,657	6,851,011	n.a.	389,404	n.a.	24,772
Farmington Hills	1972	53	60,193	2,478	5,304	1,297	375
	1977	163	1,331,595	n.a.	35,968	n.a.	2,070
Grand Rapids	1972	537	902,414	62,030	61,916	14,802	6,320
	1977	516	1,741,805	n.a.	96,843	n.a.	6,711
Lansing	1972	273	(D)	(D)	(D)	(D)	(D)
	1977	269	664,151	n.a.	57,343	n.a.	3,921
Livonia	1972	101	655,073	42,367	31,992	7,317	2,666
	1977	187	818,173	n.a.	47,883	n.a.	3,010
Pontiac	1972	85	294,939	9,500	9,009	2,270	896
	1977	75	801,872	n.a.	26,621	n.a.	1,268
Southfield	1972	502	4,285,242	33,171	84,862	20,429	6,072
	1977	688	7,552,188	n.a.	167,301	n.a.	8,647
Taylor	1972	39	221,518	13,267	10,175	2,338	954
	1977	66	728,139	n.a.	21,028	n.a.	1,203
Troy	1972	121	273,571	29,979	17,847	4,263	1,476
	1977	273	2,666,953	n.a.	62,983	n.a.	3,602

SOURCE: Bureau of the Census, 1977 Census of Wholesale Trade, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table 4; and Bureau of the Census, 1977 Census of Wholesale Trade, Geographic Area Statistics, Michigan (Washington, D.C.: 1980), WC77-A-23(A), Table 2.

a. Excludes establishments with no paid employment.

(D): Withheld to avoid disclosing data for individual companies.

n.a.: not available.

establishments, even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, wholesaling to other retailers, and so forth. Trade-in allowances are not deducted, but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments with a sales volume of $2,500 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. Also included are establishments in operation less than the full year, with reported sales of less than $2,500, if they could have expected reaching the $2,500 figure on the basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employees' income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1977 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations, but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or on holiday or paid vacation also are included.

All data exclude the activities of central administrative offices such as Kresge headquarters in Troy. Auxiliaries, such as regional warehouses that supply retail outlets but conduct no retail business themselves, are excluded also.

Table XXI-7 has a complete list of the kinds of business included in the Census of Retail Trade. Readers of this Abstract might find this list helpful in using Tables XXI-16 through XXI-24, which pertain to kind-of-business groups. With the exception of gasoline service stations, all county Census of Retail Trade statistics are compiled only for kind-of-business groups and not for the individual kinds of business themselves. Additional detail for Michigan's Standard Metropolitan Statistical Areas, counties with 500 establishments or more, and cities with 500 establishments or more are available from the Census of Retail Trade, 1977, but are not reproduced here.

Monthly Retail Trade, a publication of the U.S. Bureau of the Census, is based upon reports from a sample of establishments in the United States. Separate data on sales volume also are available for large states and Standard Metropolitan Statistical Areas. Department store sales figures are published for several large and small Standard Metropolitan Statistical Areas, and for several cities, but not for states. Michigan data from the annual summary issues of Monthly Retail Trade are reproduced in Tables XXI-27 and XXI-28.

The Bureau of Environmental Health, Michigan Department of Public Health, is responsible for enforcing Michigan law relative to food service establishments and vending machines from which are dispensed perishable foods and beverages. Statistics collected as a by-product are presented in Table XXI-25.

The Michigan Liquor Control Commission has a monopoly on the wholesaling of liquor (but not beer and wine) in the state. It also licenses all retail outlets for consumption of liquor, wine, and beer on or off premises. The number of licenses issued during the most recent licensing year are shown in Table XXI-26.

National Petroleum News, a McGraw-Hill, Inc., publication, presents a variety of information about branded gasoline service stations in its mid-May fact book issue. Some very small independent organizations are not listed, however. Table XXI-30 covers those that are.

Personal income data are released by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income statistics are discussed in chapter VI; those covering earnings in retail trade are shown in Tables XXI-14 and XXI-15.

Users of this edition also are advised to consult the new chapter XXVI, which, among other things, includes analyses of some kinds of retail trade.

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TABLE XXI-1. COMPARATIVE MICHIGAN RETAIL TRADE STATISTICS: 1972-1977

Kind of business	Michigan sales as a percentage of U.S. sales		Percentage increase in sales 1972-1977	
	1972	1977	Michigan	U.S.
Fruit stores & vegetable markets	6.0	9.8	155.2	56.5
Retail nurseries, lawn, & garden supply	7.3	6.2	84.0	115.6
Candy, nuts, & confectionary	4.8	6.0	17.2	- 7.0
Boat dealers	n.a.	5.9	64.7[a]	61.1[a]
Drinking places	6.0	5.8	15.9	18.7
Household appliance stores	5.8	5.8	23.3	23.8
Hardware stores	5.7	5.7	53.6	53.8
Radio & television stores	n.a.	5.5	102.0[a]	71.1[a]
Women's ready-to-wear stores	5.3	5.4	49.6	47.2
Automatic merchandising machine operators	5.3	5.3	30.3	31.1
Recreational & utility trailer dealers	n.a.	5.3	92.8[a]	137.7[a]
New & used motor vehicle dealers	5.0	5.2	71.0	66.3
Men's & boys' clothing & furnishings stores	5.0	5.2	30.6	24.3
Department stores	4.9	5.1	55.8	50.6
Sporting goods & bicycle shops	5.8	5.1	61.8	83.4
Floor covering stores	n.a.	5.0	57.9[a]	65.2[a]
Drapery, curtain, & upholstery stores	n.a.	4.9	37.9[a]	35.4[a]
Hobby, toy, & game stores	4.3	4.9	123.3	94.8
Motor cycle dealers	n.a.	4.8	- 3.1[a]	62.2[a]
Children's & infants' wear stores	n.a.	4.6	158.8[a]	74.0[a]
Gasoline service stations	4.4	4.6	74.9	67.8
Miscellaneous food stores	n.a.	4.6	136.9[a]	108.3[a]
Retail bakeries	5.0	4.6	28.4	38.2
Drug stores	4.8	4.5	39.7	48.7
Miscellaneous apparel & accessory stores	n.a.	4.5	232.8[a]	141.6[a]
Shoe stores	4.4	4.3	43.7	38.7
Book stores	4.2	4.4	113.4	102.8
Women's specialty & accessory, & furriers	3.7	4.4	29.0	7.2
Meat & seafood markets	3.8	4.3	50.5	34.5
Florists	4.3	4.2	45.2	49.6
Direct selling establishments	2.8	4.1	82.1	25.2
Grocery stores	4.7	4.1	39.1	58.3
Lumber & other bldg. materials dealers	n.a.	4.1	53.0[a]	81.0[a]
Miscellaneous retail stores	n.a.	4.1	86.2[a]	75.8[a]
Camera & photographic supply stores	4.7	4.0	29.9	52.7
Eating places	4.0	4.0	83.8	82.9
Miscellaneous automotive dealers	n.a.	4.0	- 17.9[a]	9.3
Record shops & musical instrument stores	n.a.	4.0	45.7[a]	87.4[a]
Sewing, needlework, & piece goods stores	3.5	3.9	37.6	23.5
Auto & home supply stores	3.7	3.8	68.8	70.5
Furniture stores	3.7	3.8	38.3	34.6
Gift, novelty, & souvenir stores	3.6	3.7	117.1	111.4
Jewelry stores	4.0	3.7	60.0	74.1
Cigar stores & stands	2.9	3.6	35.5	9.0
Variety stores	3.7	3.6	- 5.7	- 3.4
Bottled gas dealers	n.a.	3.4	117.9[a]	105.4[a]
Luggage & leather goods stores	4.4	3.3	39.0	85.1
Paint, glass, & wallpaper stores	n.a.	3.3	50.6[a]	54.3[a]
Miscellaneous home furnishings stores	n.a.	3.3	62.3[a]	110.1[a]
Mobile home dealers	3.8	3.3	- 8.3	3.0
Used car dealers	3.0	3.1	59.2	53.5
Family clothing stores	2.5	3.0	95.5	63.5
News dealers & newsstands	n.a.	3.0	37.1[a]	9.4[a]
Stationary stores	2.8	3.0	60.2	48.4
Used merchandise stores	3.2	3.0	79.7	90.7
Dairy products stores	n.a.	2.6	- 6.3[a]	25.4[a]
Miscellaneous general merchandise stores	2.4	2.4	46.7	49.2
Fuel oil dealers	n.a.	2.1	120.0[a]	123.1[a]
Liquor stores	1.9	2.1	46.6	31.3
Fuel & ice dealers	n.a.	2.0	- 36.5[a]	- 5.0[a]
Mail order houses	2.0	2.0	59.4	65.2
TOTAL	4.5	4.4	55.3	38.1

a. Establishments with payroll only.
n.a.: not available.

TABLE XXI-1. COMPARATIVE MICHIGAN RETAIL TRADE STATISTICS: 1972-1977 (cont.)

Sales per establishment 1977 ($000)		Payroll per employee 1977 ($)		Payroll as a percentage of receipts 1977	
Michigan	United States	Michigan	United States	Michigan	United States
295.8	138.6	5,526	5,823	8.4	9.3
202.5	115.5	8,901	7,286	15.4	16.7
95.0	71.6	5,650	4,207	19.7	15.8
494.6	396.6	11,513	9,684	9.9	9.9
105.7	82.1	4,117	4,179	18.8	20.2
414.3	269.7	9,684	8,855	10.7	12.8
264.3	230.1	7,357	7,200	13.1	14.2
297.9	212.8	9,551	8,880	11.9	13.0
476.7	277.2	5,830	5,366	14.2	14.3
339.7	292.5	10,106	8,931	17.4	17.7
556.3	553.1	11,132	10,260	8.1	7.5
5,358.5	3,958.1	14,624	13,006	7.7	8.4
414.9	306.1	8,323	7,561	16.7	16.1
12,180.6	8,732.8	8,328	6,535	14.6	14.0
153.6	147.7	8,001	6,924	12.7	12.8
283.3	234.5	11,931	10,281	15.0	14.7
89.5	67.6	5,962	6,657	17.9	19.5
103.5	95.4	4,844	5,326	11.4	11.5
383.1	310.0	8,292	8,761	10.5	11.2
186.1	140.9	4,590	4,646	14.2	14.0
394.2	320.0	5,323	5,694	6.4	7.1
103.5	98.8	5,230	5,594	9.9	12.2
126.9	115.5	4,634	4,782	27.6	29.1
553.0	468.0	7,298	6,804	13.0	13.6
116.9	78.7	6,416	5,879	18.5	16.8
245.7	202.6	7,257	6,782	14.6	14.9
177.6	144.7	5,914	5,447	12.0	13.5
175.0	116.8	6,724	5,958	15.1	15.0
290.6	224.3	6,773	6,937	11.1	11.2
98.0	81.7	5,671	5,288	21.7	21.3
453.8	351.2	8,366	6,885	18.2	20.7
1,013.7	926.2	9,479	7,884	9.3	9.3
871.2	854.6	11,957	10,367	10.7	10.8
61.3	60.9	8,663	7,882	18.7	19.3
284.5	206.4	7,703	7,910	12.3	12.1
234.3	202.6	3,991	4,093	25.6	25.8
121.9	130.1	7,940	8,325	8.4	9.6
208.9	209.0	6,819	7,360	13.2	13.7
100.2	102.7	3,663	4,160	13.6	14.0
302.5	273.9	10,006	9,384	15.5	15.6
433.7	344.6	10,986	9,466	16.0	15.3
74.6	75.6	5,001	4,836	15.2	14.8
186.0	159.2	7,913	7,945	17.0	16.7
166.8	126.8	4,739	5,509	9.9	10.7
470.7	408.3	5,177	4,680	14.8	14.4
478.6	410.5	9,947	9,411	12.0	12.7
151.7	144.3	6,488	6,603	16.2	15.7
202.7	206.0	9,206	8,886	17.5	15.4
91.4	110.1	6,177	6,597	16.3	15.9
448.6	492.5	11,751	11,085	7.9	8.2
200.0	187.6	10,717	8,851	7.4	7.2
394.9	373.7	5,221	5,631	12.6	13.3
52.2	68.6	5,055	4,606	10.2	12.7
198.1	174.3	7,023	6,393	16.8	16.6
57.8	57.2	6,812	6,447	19.6	18.4
85.1	151.7	3,192	4,021	13.0	11.6
470.4	437.5	6,517	6,133	10.6	10.1
540.2	648.3	9,083	10,898	7.8	9.5
295.6	292.4	5,441	6,277	6.8	7.5
72.0	112.6	5,792	7,481	8.3	12.5
486.6	689.5	6,632	8,797	10.0	14.9
475.9	389.8	7,106	6,584	12.0	12.3

SOURCE: Developed from Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1976), RC77-A-23, Tables 1 and 2, and 1972 Census of Retail Trade, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 1; and similar documents for the United States.

TABLE XXI-2. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1947, 1954, 1958, 1963, 1967, 1972 AND 1977

	All establishments[a]				Establishments with payroll							
	Number (000)		Sales ($1,000,000)		Number (000)		Sales ($1,000,000)		Annual payroll ($1,000,000)		Paid employees[b] (000)	
Year	Mich.	U. S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.
1947[c]	68,756	1,771,317	5,950	130,520	n.a.	n.a.	n.a.	n.a.	663	14,186	311	7,083
1947	65,990	1,668,479	5,854	128,849	48,040	1,118,692	5,477	118,352	n.a.	n.a.	n.a.	n.a.
1954	67,995	1,721,650	8,168	169,968	50,331	1,124,040	7,776	157,933	879	18,199	325	7,124
1958	72,379	1,794,744	8,898	200,365	52,291	1,185,036	8,471	187,768	946	21,673	337	7,942
1963	69,758	1,707,931	10,855	244,202	51,568	1,206,087	10,431	233,085	1,110	27,632	340	8,410
1967	63,569	1,763,324	14,114	310,214	46,921	1,191,546	13,667	295,170	1,553	36,175	398	9,380
1972[d]	72,413	1,934,466	20,938	470,806	49,729	1,286,517	20,301	451,987	2,412	56,385	466	11,360
1972[e]	71,795	1,912,871	20,630	459,040	49,111	1,264,922	19,993	440,222	2,383	55,372	462	11,210
1972[f]	65,854	1,780,441	20,546	457,405	49,111	1,264,922	19,993	440,222	2,383	55,372	462	11,210
1977[f]	67,059	1,855,068	31,912	723,134	48,431	1,303,621	31,090	699,635	3,720	85,854	524	13,040

SOURCE: Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 1; Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series Michigan (Washington, D.C.: 1974), RC72-A-23, Table 1 and 7; Bureau of the Census, U.S. Census of Business, 1967, Retail Trade, Michigan (Washington, D.C.: 1969), BC67-RA24, Table 2, and similar census documents for 1963 (BC63-RA24, Table 2), 1958 (BC58-RA22, Table 101), 1954 (R-1-22, Tables 101 and 101A), and 1948 (vol. 3 Michigan section, Table 101); and similar documents for the United States.

a. Excludes establishments with no paid employment and with annual sales volume less than $2,500.
b. Week including 15 November for 1947-1963; week including 12 March for 1967.
c. Unrevised statistics. Based upon reports from establishments with sales volume of $500 or over.
d. Based on 1967 Standard Industrial Classification.
e. Based on 1972 Standard Industrial Classification, including direct selling establishments without payroll.
f. Based on 1972 Standard Industrial Classification, excluding direct selling establishments without payroll.
n.a.: not available.

TABLE XXI-3. RANKING OF STATES ACCORDING TO PER CAPITA SALES BY RETAIL TRADE ESTABLISHMENTS: 1977

(In thousands of dollars)

State	1972	1977	State	1972	1977
Nevada	2.99	4.82	Ohio	2.13	3.32
Alaska	2.37	4.43	Kansas	2.11	3.32
Wyoming	2.36	4.07	New Jersey	2.30	3.31
New Hampshire	2.63	3.99	Nebraska	2.10	3.31
Oregon	2.38	3.92	Missouri	2.16	3.30
Colorado	2.46	3.74	Oklahoma	2.10	3.28
Montana	2.25	3.72	Utah	2.11	3.26
Florida	2.64	3.71	Virginia	2.10	3.25
California	2.39	3.70	Wisconsin	2.06	3.21
Hawaii	2.27	3.70	Massachusetts	2.30	3.20
Delaware	2.60	3.67	Tennessee	2.09	3.19
Washington	2.18	3.67	South Dakota	1.94	3.17
Texas	2.22	3.58	Louisiana	1.93	3.16
Arizona	2.41	3.54	Pennsylvania	2.12	3.16
Idaho	2.20	3.52	Georgia	2.19	3.16
Illinois	2.31	3.49	West Virginia	1.86	3.06
Michigan	2.28	3.49	North Carolina	2.03	3.05
Maryland	2.33	3.48	Dist. of Columbia	2.41	3.04
North Dakota	2.02	3.46	Kentucky	1.87	3.03
Vermont	2.39	3.46	Rhode Island	2.08	2.99
Indiana	2.17	3.41	Arkansas	1.96	2.97
Minnesota	2.16	3.41	South Carolina	1.93	2.90
Iowa	2.06	3.40	Alabama	1.87	2.90
New Mexico	2.15	3.36	New York	2.13	2.83
Connecticut	2.34	3.36	Mississippi	1.74	2.59
Maine	2.17	3.34	United States	2.20	3.34

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-4. RANKING OF STATES ACCORDING TO SALES BY RETAIL TRADE ESTABLISHMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Montana	55.9	61.0	Kentucky	51.8	50.8
New Hampshire	62.5	60.2	Missouri	51.7	50.3
Vermont	61.2	59.5	Nebraska	48.1	49.6
North Dakota	47.6	58.8	Iowa	48.7	49.5
Nevada	57.8	58.7	Indiana	50.3	49.4
Maine	59.6	58.2	Hawaii	45.4	48.8
New Mexico	59.6	57.3	Washington	48.3	48.5
Idaho	56.7	56.9	Minnesota	49.5	48.1
Utah	56.6	55.4	Delaware	51.1	48.0
Florida	59.2	55.2	Wisconsin	48.3	47.5
Arizona	55.7	54.9	Kansas	47.2	47.1
Tennessee	56.6	54.4	Virginia	47.9	46.9
Oregon	54.8	54.4	Ohio	47.8	46.8
South Dakota	50.4	54.3	California	47.7	46.3
Arkansas	59.2	54.2	Michigan	47.5	45.9
Wyoming	54.2	53.8	Maryland	47.2	45.6
Louisiana	55.3	52.8	Pennsylvania	47.6	45.1
Georgia	55.5	52.1	Rhode Island	47.0	44.4
Colorado	54.2	52.0	Massachusetts	47.7	44.4
Texas	54.9	51.9	Illinois	45.5	43.4
Mississippi	56.1	51.6	Alaska	45.4	42.4
North Carolina	53.4	51.5	New Jersey	43.1	41.8
South Carolina	54.7	51.3	Connecticut	43.8	41.6
Alabama	54.5	51.2	New York	41.2	37.9
Oklahoma	54.7	51.1	Dist. of Columbia	43.7	34.0
West Virginia	51.4	51.0	United States	49.1	47.5

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Rable 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-5. RANKING OF STATES ACCORDING TO NUMBER OF INHABITANTS PER RETAIL TRADE ESTABLISHMENT: 1977

State	1972	1977	State	1972	1977
Dist. of Columbia	161	163	Tennessee	106	111
Maryland	130	146	Mississippi	102	111
Virginia	136	137	Alaska	110	109
Michigan	126	136	North Carolina	106	109
Illinois	119	132	Wisconsin	98	108
Ohio	118	130	South Carolina	102	107
Utah	114	128	Texas	95	106
New York	116	126	Oregon	96	105
West Virginia	114	124	New Mexico	95	103
Massachusetts	116	124	Florida	97	103
New Jersey	125	123	Colorado	98	102
Louisiana	114	123	Nebraska	90	102
Indiana	116	123	Iowa	91	100
Hawaii	129	121	Nevada	94	100
Pennsylvania	105	119	Oklahoma	90	100
Minnesota	107	118	Kansas	87	99
Delaware	106	118	Arkansas	90	99
Connecticut	111	117	North Dakota	91	97
Alabama	108	117	Idaho	86	97
California	115	116	Maine	94	96
Washington	109	115	New Hampshire	94	95
Arizona	107	115	South Dakota	82	90
Kentucky	111	115	Wyoming	76	87
Rhode Island	110	115	Montana	81	86
Georgia	104	113	Vermont	88	84
Missouri	103	112	United States	109	117

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-6. RANKING OF STATES ACCORDING TO SALES PER RETAIL TRADE ESTABLISHMENT: 1977

(In thousands of dollars)

State	1972	1977	State	1972	1977
Maryland	302.6	507.2	Pennsylvania	223.7	377.3
Dist. of Columbia	388.0	494.8	Missouri	222.8	368.4
Alaska	259.6	484.2	Georgia	227.1	356.8
Nevada	280.3	483.0	New York	247.7	356.5
Michigan	287.4	475.9	Tennessee	220.9	355.8
Illinois	275.9	461.4	Wyoming	179.7	352.5
Hawaii	291.8	445.9	Wisconsin	201.4	348.7
Virginia	284.8	444.3	Kentucky	207.7	348.5
Delaware	277.0	433.3	New Mexico	204.6	346.6
Ohio	252.7	431.6	Rhode Island	229.6	344.3
California	274.3	431.4	Iowa	187.8	342.2
Washington	237.1	423.7	Idaho	190.1	341.0
Indiana	251.0	418.5	Alabama	203.2	339.0
Utah	239.7	418.0	Nebraska	188.8	337.4
Oregon	229.7	410.2	North Dakota	183.5	336.7
Arizona	258.2	408.3	North Carolina	214.9	332.7
New Jersey	287.9	407.7	Kansas	184.2	329.1
Minnesota	230.9	403.7	Oklahoma	188.3	328.2
Massachusetts	266.7	395.2	Maine	205.0	321.6
Connecticut	259.9	394.2	Montana	182.9	320.7
Louisiana	221.0	387.4	South Carolina	196.4	310.5
Colorado	241.2	382.7	Arkansas	176.9	293.1
Florida	256.1	381.9	Vermont	211.3	290.7
West Virginia	211.3	380.6	Mississippi	177.9	288.1
Texas	210.2	379.9	South Dakota	159.8	286.5
New Hampshire	246.8	379.7	United States	240.0	389.8

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977

Kind of business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees, 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Building materials, hardware, garden supply, and mobile home dealers								
Building materials and supply stores	1972	1,557	717,071	1,287	707,030	84,757	19,323	9,953
	1977	1,562	1,096,039	1,261	1,080,288	120,393	26,832	10,408
Lumber and other building material dealers	1972	(c)	(c)	948	655,499	76,327	17,200	8,664
	1977	1,166	1,015,778	937	1,002,657	106,832	23,551	8,935
Paint, glass, and wallpaper stores	1972	(c)	(c)	339	51,531	8,430	2,123	1,289
	1977	396	80,261	324	77,631	13,561	3,281	1,473
Hardware stores	1972	1,327	226,491	979	212,164	25,884	5,812	4,918
	1977	1,316	374,831	986	328,862	43,076	9,862	5,855
Retail nurseries, lawn, garden supply stores	1972	252	60,183	147	57,434	7,121	1,352	1,152
	1977	547	110,761	265	101,249	15,631	3,095	1,756
Mobile home dealers	1972	441	140,429	307	132,976	10,079	2,229	1,472
	1977	287	128,751	196	121,566	9,636	1,850	820
Total	1972	3,577	1,144,174	2,720	1,109,604	127,841	28,716	17,495
	1977	3,712	1,683,382	2,708	1,631,965	188,736	41,639	18,839
General merchandise group stores								
Department stores	1972	346	2,494,147	346	2,494,147	324,757	73,067	60,042
	1977	319	3,885,615	319	3,885,615	567,784	113,906	68,180
Variety stores	1972	712	272,666	626	270,265	40,300	8,962	9,634
	1977	546	257,009	461	252,943	37,528	8,609	7,249
Misc. general merchandise stores	1972	559	162,621	394	156,948	18,356	4,078	3,958
	1977	507	238,513	359	230,587	24,438	5,573	3,750
Total	1972	1,617	2,929,434	1,366	2,921,360	383,413	86,017	73,634
	1977	1,372	4,381,137	1,139	4,369,145	629,750	127,088	79,179
Food stores								
Grocery stores	1972	6,634	4,393,783	4,890	4,289,122	355,968	83,688	60,809
	1977	5,993	6,110,863	4,650	5,980,923	558,991	129,210	58,974
Meat, fish (seafood) mkts., incl. fzr. provisioners	1972	490	106,974	359	101,051	10,409	2,429	2,003
	1977	554	161,010	399	150,783	16,804	4,035	2,481

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Food stores (cont.)								
Freezer/locker	1972	(c)	(c)	35	12,946	1,655	412	326
meat provisioners	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Meat markets	1972	(c)	(c)	287	83,337	8,351	1,922	1,568
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Fish markets	1972	(c)	(c)	37	4,768	403	95	109
(seafood)	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Fruit stores and	1972	411	41,834	205	36,888	3,164	533	641
vegetable mkts.	1977	361	106,771	176	96,821	8,118	1,682	1,469
Candy, nut, and	1972	540	33,160	299	28,454	5,605	1,337	1,616
confectionery	1977	409	38,866	267	34,149	6,724	1,472	1,190
stores								
Retail bakeries	1972	1,048	82,806	902	78,371	18,866	4,500	5,672
	1977	838	106,362	669	95,196	26,255	6,096	5,666
Retail bakeries,	1972	(c)	(c)	596	53,220	15,461	3,614	4,711
baking/selling	1977	(c)	(c)	570	83,189	23,792	5,458	5,094
Retail bakeries,	1972	(c)	(c)	306	25,151	3,405	886	961
selling only	1977	(c)	(c)	99	12,007	2,463	638	572
Other food stores	1972	694	51,443	331	36,441	4,171	921	1,370
	1977	878	83,901	316	53,190	5,940	1,375	1,481
Dairy pro. stores	1972	(c)	(c)	229	23,146	2,642	604	1,044
	1977	378	32,159	170	21,699	2,828	640	886
Misc. food stores	1972	(c)	(c)	102	13,295	1,529	317	326
	1977	500	51,742	146	31,491	3,112	735	596
Total	1972	9,817	4,710,000	6,986	4,570,327	398,183	93,408	72,111
	1977	9,033	6,607,773	6,477	6,411,062	622,832	143,870	71,261
Automotive dealers								
Motor vehicle dlrs.,	1972	1,236	3,678,554	1,197	3,675,715	322,999	77,229	31,615
new and used cars	1977	1,174	6,290,913	1,174	6,290,913	486,762	116,237	33,285
With domestic	1972	(c)	(c)	895	2,651,892	228,419	55,060	22,595
car franchise only	1977	(c)	(c)	867	4,678,024	352,382	84,748	23,986
With imported car	1972	(c)	(c)	100	134,576	19,073	4,610	1,920
franchise only	1977	(c)	(c)	100	255,867	27,597	6,271	2,057
Both	1972	(c)	(c)	202	889,247	75,507	17,599	7,100
	1977	(c)	(c)	207	1,357,022	106,783	25,218	7,242

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Automotive dealers (cont.)								
Motor vehicle dlrs., used cars only	1972	1,009	136,665	400	106,095	7,017	1,621	1,033
	1977	1,083	217,539	383	160,455	11,885	2,482	1,109
Auto/home supply stores	1972	1,303	290,139	953	279,096	43,742	9,836	6,061
	1977	1,619	489,732	1,208	470,422	72,971	16,482	7,293
Tire, batter, and accessory dealers	1972	(cc)	(c)	818	238,856	39,118	8,788	5,353
	1977	(c)	(c)	1,085	411,524	66,979	15,120	6,552
Other	1972	(c)	(c)	135	40,240	4,624	1,048	708
	1977	(c)	(c)	123	58,898	5,992	1,362	741
Misc. auto. dealers	1972	1,024	303,841	674	290,966	26,185	5,322	3,573
	1977	1,094	434,554	695	413,459	38,616	7,681	3,791
Boat dealers	1972	(c)	(c)	238	91,387	8,587	1,761	1,225
	1977	311	153,828	240	150,471	14,967	2,861	1,300
Recreational/util. trailer dealers	1972	(c)	(c)	145	76,938	5,445	1,140	702
	1977	278	154,655	188	148,323	12,078	2,382	1,085
Motorcycle dealers	1972	(c)	(c)	171	94,085	9,565	1,860	1,276
	1977	247	94,626	190	91,214	9,602	1,965	1,158
Auto dealers N.E.C.	1972	(c)	(c)	120	28,556	2,588	561	370
	1977	258	31,445	77	23,451	1,969	473	248
Total	1972	4,572	4,409,199	3,224	4,351,872	399,943	94,008	42,282
	1977	4,970	7,432,738	3,460	7,335,249	610,234	142,862	45,478
Gasoline service stations								
Total	1972	8,919	1,481,565	7,588	1,417,276	132,880	32,304	33,524
	1977	6,572	2,590,860	5,682	2,509,291	161,320	40,310	30,309
Apparel and accessory stores								
Women's clothing, specialty, furriers	1972	1,[illegible]	483,980	1,258	479,353	67,067	15,849	15,699
	1977	1,666	716,921	1,479	711,578	101,237	23,516	17,216
Women's ready-to-wear stores	1972	1,116	449,242	1,010	446,229	61,877	14,628	14,569
	1977	1,410	672,123	1,295	666,510	94,748	22,071	16,251
Women's acc. and specialty stores	1972	296	23,297	212	21,949	3,352	722	866
	1977	256	44,798	184	43,068	6,489	1,445	965
Millinery stores	1972	(c)	(c)	37	2,620	445	118	123
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Corset/lingerie	1972	(c)	(c)	13	1,124	130	33	45
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a] Number	All establishments[a] Sales ($1,000)	Establishments with payroll Number	Establishments with payroll Sales ($1,000)	Payroll ($1,000) Entire year	Payroll ($1,000) First quarter	Paid employees[b] 12 March
Apparel and accessory stores (cont.)								
Other accessory specialty stores	1972	(c)	(c)	162	18,205	2,777	621	698
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Furriers/fur shops	1972	54	11,441	36	11,175	1,838	49	264
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Men's/boy's clothing furnishing stores	1972	872	278,283	808	275,751	41,857	9,943	7,183
	1977	876	363,486	809	360,007	60,002	14,737	7,209
Family clothing stores	1972	565	122,829	395	119,318	16,513	3,609	3,838
	1977	608	240,129	410	234,461	29,439	7,568	5,639
Shoe stores	1972	995	177,253	908	174,969	25,736	6,010	5,156
	1977	1,037	254,746	933	250,834	36,516	8,137	5,032
Men's	1972	(c)	(c)	134	25,530	3,246	743	547
	1977	(c)	(c)	136	38,313	5,131	1,193	523
Women's	1972	(c)	(c)	172	37,921	6,250	1,491	1,293
	1977	(c)	(c)	187	58,696	9,407	2,021	1,310
Children's	1972	(c)	(c)	27	3,724	625	129	99
	1977	(c)	(c)	34	6,718	1,236	299	171
Family	1972	(c)	(c)	575	107,794	15,615	3,647	3,217
	1977	(c)	(c)	576	147,107	20,742	4,624	3,028
Other apparel and accessory stores	1972	309	23,886	217	21,968	3,443	828	849
	1977	462	66,593	351	63,576	10,320	2,483	1,901
Children's/infants' wear stores	1972	(c)	(c)	109	12,879	1,770	442	489
	1977	182	33,874	166	33,331	4,719	1,167	1,028
Misc. apparel and accessory stores	1972	(c)	(c)	108	9,089	1,673	386	360
	1977	280	32,719	185	30,245	5,601	1,316	873
Total	1972	4,207	1,086,231	3,586	1,071,359	154,616	36,239	32,725
	1977	4,649	1,641,875	3,982	1,620,456	237,514	56,441	36,997
Furniture, home furnishings, and equipment stores								
Furniture and home furnishings stores	1972	2,410	563,539	1,690	543,868	87,059	19,858	11,695
	1977	2,872	816,109	1,754	780,108	123,430	27,902	11,937
Furniture stores	1972	1,179	382,833	945	374,847	61,286	14,000	7,919
	1977	1,221	529,548	945	516,997	82,561	18,701	7,515
Home furnishings	1972	1,231	180,706	745	169,021	25,773	5,858	3,776
	1977	1,651	286,561	809	263,111	40,869	9,201	4,422
Floor covering	1972	(c)	(c)	425	120,813	17,798	4,010	2,209
	1977	711	201,453	432	190,755	28,551	6,960	2,393

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of Business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Furniture, home furnishings, and equipment stores (cont.)								
Drapery, curtain upholstery stores	1972	(c)	(c)	178	24,134	4,282	1,011	839
	1977	420	37,597	177	33,275	5,956	1,478	999
Misc. home furnishing stores	1972	(c)	(c)	142	24,074	3,693	837	728
	1977	520	47,511	200	39,081	6,362	1,363	1,030
Household appliance stores	1972	819	222,177	622	215,310	24,149	5,594	3,344
	1977	616	273,853	464	265,593	28,063	6,535	2,898
Radio, television and music stores	1972	1,290	222,952	843	209,944	27,998	7,002	4,551
	1977	1,509	401,120	953	382,838	46,889	11,375	5,502
Radio/television	1972	(c)	(c)	514	136,740	16,439	4,014	2,532
	1977	965	287,501	590	276,173	32,760	7,783	3,430
Music stores	1972	(c)	(c)	329	73,204	11,559	2,988	2,019
	1977	544	113,619	363	106,665	14,129	3,592	2,072
Record shops	1972	(c)	(c)	93	14,586	1,552	385	349
	1977	(c)	(c)	144	41,482	4,280	1,005	655
Musical instrument	1972	(c)	(c)	236	58,618	10,007	2,603	1,670
	1977	(c)	(c)	219	65,183	9,849	2,587	1,417
Total	1972	4,519	1,008,668	3,155	969,122	139,206	32,454	19,590
	1977	5,042	1,491,082	3,171	1,428,539	198,382	45,812	20,337
Eating and drinking places								
Eating places	1972	8,998	1,223,085	8,026	1,198,109	311,093	70,112	97,154
	1977	9,594	2,247,666	8,849	2,220,260	567,499	130,378	142,198
Restaurants and lunchrooms	1972	(c)	(c)	4,136	651,436	176,886	39,949	55,618
	1977	(c)	(c)	4,438	1,197,242	325,100	75,239	81,720
Cafeterias	1972	(c)	(c)	284	60,371	16,283	3,968	5,510
	1977	(c)	(c)	198	58,880	14,893	3,546	3,796
Refreshment places	1972	(c)	(c)	2,893	367,502	81,371	17,409	26,853
	1977	(c)	(c)	3,315	774,674	170,744	38,527	45,694
Other eating places	1972	(c)	(c)	713	118,800	36,553	8,786	9,173
	1977	(c)	(c)	898	189,464	56,762	13,066	10,988
Drinking places (alcoholic bev.)	1972	4,990	386,828	4,356	365,892	67,314	15,926	20,136
	1977	4,242	448,331	3,737	427,126	80,494	19,633	19,552
Total	1972	13,988	1,609,913	12,382	1,564,001	378,407	86,038	117,290
	1977	13,836	2,695,997	12,586	2,647,386	647,993	150,011	161,750

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	12 March
Drug stores and proprietary stores								
Drug stores	1972	(c)	(c)	1,762	709,377	92,877	22,605	18,956
	1977	(c)	(c)	1,700	1,000,554	132,358	32,147	17,963
Proprietary stores	1972	(c)	(c)	127	38,094	3,352	814	828
	1977	(c)	(c)	123	44,232	3,797	899	694
Total	1972	1,970	751,939	1,889	747,471	96,229	23,419	19,784
	1977	1,899	1,050,132	1,823	1,044,786	136,155	33,046	18,657
Miscellaneous retail stores								
Liquor stores	1972	775	189,793	645	180,244	9,471	2,263	2,578
	1977	941	278,188	778	258,627	17,467	4,107	3,210
Used mdse. stores	1972	1,017	47,216	375	36,449	6,794	1,557	1,345
	1977	1,469	84,854	439	65,351	12,780	3,047	1,876
Nonstore retailers	1972	7,032	400,147	716	305,782	46,000	10,973	7,627
	1977	1,177[a]	472,143	744	456,689	69,956	16,968	8,095
Mail-order houses	1972	231	90,033	171	88,725	8,680	2,067	1,998
	1977	295	143,538	189	139,951	13,941	3,138	2,102
Automatic mdse. machine operators	1972	568	159,961	253	151,010	24,679	5,999	3,452
	1977	617	208,358	290	196,491	34,129	8,406	3,377
Direct selling	1972	6,233	150,153	292	66,047	12,641	2,907	2,177
	1977	265[a]	120,247	265	120,247	21,886	5,394	2,616
Fuel and ice dealers	1972	464	116,519	364	113,523	16,124	4,370	2,323
	1977	551	250,703	402	240,507	23,068	6,051	2,440
Fuel oil	1972	(c)	(c)	166	61,510	7,103	2,027	1,011
	1977	264	142,610	198	135,318	10,555	2,711	1,162
Liquefied petroleum, bottled gas	1972	(c)	(c)	154	46,739	8,269	2,170	1,177
	1977	215	102,907	181	101,840	12,235	3,267	1,230
Fuel and ice, N.E.C.	1972	(c)	(c)	44	5,274	752	173	135
	1977	72	5,186	23	3,349	278	73	48
Florists	1972	878	69,010	613	63,662	13,065	3,021	2,896
	1977	1,023	100,234	698	90,800	19,662	4,485	3,467
Cigar stores/stands	1972	142	12,313	104	11,136	1,507	343	429
	1977	100	16,683	69	14,784	1,455	390	307

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a]		Establishments with payroll				
		Number	Sales ($1,000)	Number	Sales ($1,000)	Payroll ($1,000) Entire year	Payroll ($1,000) First quarter	Paid employees 12 March[b]
Miscellaneous retail stores (cont.)								
Misc. shopping goods stores	1972	4,793	511,314	2,631	468,506	62,738	14,127	13,403
	1977	6,370	871,308	3,274	798,196	112,502	26,266	17,767
Sporting goods and bicycle shops	1972	1,215	146,755	637	130,874	15,094	3,265	2,631
	1977	1,545	237,380	784	212,256	27,019	5,946	3,377
General line sporting goods	1972	(c)	(c)	443	89,773	10,676	2,411	1,855
	1977	(c)	(c)	387	127,406	16,513	3,792	2,038
Specialty line sporting goods	1972	(c)	(c)	194	41,101	4,418	854	776
	1977	(c)	(c)	397	84,850	10,506	2,154	1,339
Book stores	1972	286	38,032	189	35,600	4,797	1,180	1,173
	1977	457	81,164	295	77,086	9,255	2,222	1,565
Stationery stores	1972	171	21,153	141	20,450	3,381	817	825
	1977	171	33,881	125	32,649	5,492	1,299	782
Jewelry stores	1972	819	123,210	541	116,581	18,163	4,151	3,249
	1977	1,093	203,247	663	190,550	32,483	7,820	4,105
Hobby, toy, game shops	1972	512	38,682	167	33,404	3,600	731	727
	1977	835	86,386	270	77,160	8,826	2,045	1,822
Camera and photo supply stores	1972	132	35,702	104	34,753	4,174	996	733
	1977	163	46,370	118	44,399	5,477	1,324	711
Gift, novelty, and souvenir shops	1972	910	43,322	481	36,656	5,098	1,022	1,416
	1977	1,261	94,063	615	81,498	12,427	2,798	2,485
Luggage/leather goods	1972	58	8,732	46	8,596	1,403	327	279
	1977	80	12,137	54	11,702	1,901	462	293
Sewing, needlework, piece goods stores	1972	690	55,726	325	51,592	7,028	1,638	2,370
	1977	765	76,680	350	70,896	9,622	2,350	2,627
Other misc. retail stores	1972	3,508	152,873	767	91,555	16,913	3,883	2,809
	1977	4,034	247,124	960	156,975	29,280	6,661	3,380
News dealers and newstands	1972	(c)	(c)	65	7,253	743	177	209
	1977	309	16,143	39	9,942	1,011	239	200
Pet shops	1972	(c)	(c)	77	6,997	1,070	259	277
	1977	(c)	(c)	122	15,368	2,103	552	426
Typewriter stores	1972	(c)	(c)	33	5,214	1,106	259	196
	1977	(c)	(c)	27	4,968	1,245	292	116

TABLE XXI-7. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Miscellaneous retail stores (cont.)								
Optical goods stores	1972	(c)	(c)	197	23,691	6,040	1,498	766
	1977	(c)	(c)	312	50,251	11,701	2,809	1,093
Other retail stores, N.E.C.	1972	(c)	(c)	395	48,400	7,954	1,690	1,361
	1977	(c)	(c)	499	86,388	14,231	3,008	1,745
Total	1972	18,609	1,499,185	6,215	1,270,857	172,612	40,537	33,410
	1977	15,974	2,337,380	7,403	2,091,871	287,181	68,214	40,742
Total retail trade	1972	71,795	20,630,308	49,111	19,993,249	2,383,330	553,230	461,845
	1977	67,059	31,912,356	48,431	31,089,750	3,720,097	850,313	523,549

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 1; and Bureau of the Census, Census of Retail Trade, 1977, Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 1.

a. Excludes direct selling establishments without payroll in 1977.

b. Week including 12 March.

c. Data not provided because establishments with no payroll are classified only at the next broader kind-of-business level.

N.E.C.: not elsewhere classified.

n.a.: not available.

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Alcona	1972	103	13,237	63	11,940	1,001	208	183
	1977	104	21,152	68	18,851	1,727	383	281
Alger	1972	118	13,888	88	13,219	1,251	270	319
	1977	126	23,515	85	22,114	2,099	488	398
Allegan	1972	623	117,669	394	111,481	11,341	2,521	2,387
	1977	589	172,398	372	163,661	15,818	3,565	2,490
Alpena	1972	352	83,744	258	81,129	8,921	2,065	1,754
	1977	361	120,187	260	115,800	12,851	2,948	1,887
Antrim	1972	179	23,867	117	22,354	2,462	482	438
	1977	183	39,130	124	36,137	3,674	760	522
Arenac	1972	181	26,432	110	24,144	2,293	494	491
	1977	170	41,350	104	37,810	3,445	778	768
Baraga	1972	95	13,469	69	12,867	1,169	239	260
	1977	91	25,950	58	24,543	2,069	463	407
Barry	1972	305	47,784	189	45,189	4,765	1,115	999
	1977	262	70,972	169	67,273	6,885	1,569	1,095
Bay	1972	1,056	275,360	707	265,767	29,812	6,891	6,114
	1977	948	423,811	706	412,598	46,888	10,732	6,842
Benzie	1972	151	19,404	105	17,994	1,837	355	382
	1977	158	35,188	110	33,007	3,289	672	469
Berrien	1972	1,642	381,518	1,086	366,673	43,005	9,844	9,203
	1977	1,493	601,021	1,023	582,367	68,036	15,621	10,327
Branch	1972	368	77,758	238	74,898	7,594	1,757	1,554
	1977	373	112,248	245	107,364	10,943	2,456	1,714
Calhoun	1972	1,273	326,609	886	317,329	39,741	9,165	7,959
	1977	1,096	458,717	822	449,307	60,047	13,046	8,590
Cass	1972	357	57,751	226	53,898	6,034	1,359	1,387
	1977	323	85,190	206	80,655	8,959	1,968	1,311
Charlevoix	1972	252	33,605	174	31,579	3,396	724	701
	1977	245	57,057	168	54,108	5,758	1,241	848
Cheboygan	1972	292	51,656	220	49,363	5,469	977	1,041
	1977	300	81,488	244	79,195	9,907	1,860	1,178

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Chippewa	1972	390	66,714	252	61,370	6,890	1,467	1,405
	1977	371	96,034	256	90,243	10,349	2,305	1,551
Clare	1972	290	42,901	203	40,334	4,315	873	863
	1977	264	70,763	176	66,674	6,910	1,677	1,046
Clinton	1972	351	74,127	225	70,705	6,677	1,524	1,341
	1977	310	114,306	213	111,308	11,100	2,689	1,605
Crawford	1972	112	19,832	84	18,691	1,814	382	382
	1977	121	38,257	86	36,949	3,495	741	546
Delta	1972	402	84,832	296	81,761	8,244	1,911	1,892
	1977	417	133,249	301	127,947	12,866	2,997	2,033
Dickinson	1972	300	61,058	211	58,652	6,041	1,389	1,324
	1977	303	96,930	214	94,070	10,289	2,432	1,624
Eaton	1972	651	190,601	436	186,482	19,693	4,573	4,230
	1977	642	337,887	463	330,941	40,462	8,686	5,594
Emmet	1972	361	73,267	274	71,252	8,801	1,888	1,618
	1977	380	120,378	287	116,883	14,600	3,195	2,081
Genesee	1972	3,358	1,108,533	2,378	1,084,339	129,485	29,972	24,499
	1977	2,993	1,817,915	2,305	1,789,955	208,467	46,056	27,612
Gladwin	1972	161	25,620	107	23,734	2,198	418	476
	1977	160	45,064	114	42,533	4,097	911	663
Gogebic	1972	274	43,688	187	41,340	4,180	983	1,064
	1977	272	60,740	174	57,652	5,981	1,502	1,141
Grand Traverse	1972	553	149,747	386	145,919	18,243	3,959	3,201
	1977	626	235,242	453	228,152	29,767	6,872	4,210
Gratiot	1972	416	83,581	265	79,596	8,479	1,986	1,821
	1977	365	115,007	256	110,234	12,512	2,930	1,944
Hillsdale	1972	372	60,864	203	55,457	6,314	1,464	1,335
	1977	345	96,388	204	89,830	9,232	2,108	1,382
Houghton	1972	398	66,023	260	62,189	6,209	1,397	1,460
	1977	375	100,858	256	95,464	10,336	2,364	1,796
Huron	1972	463	68,640	296	53,503	6,131	1,443	1,346
	1977	444	101,580	286	94,370	9,515	2,221	1,567

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Ingham	1972	1,959	666,457	1,413	654,545	83,278	19,227	17,145
	1977	1,775	1,000,941	1,321	984,425	125,203	27,689	18,172
Ionia	1972	432	79,443	282	75,845	7,406	1,718	1,628
	1977	367	139,309	266	134,797	14,679	2,904	2,087
Iosco	1972	366	56,636	260	53,376	5,794	1,197	1,149
	1977	348	83,191	235	79,553	8,664	1,838	1,276
Iron	1972	202	27,929	141	26,520	2,511	561	644
	1977	208	45,716	127	43,538	3,705	862	767
Isabella	1972	326	82,019	240	79,941	9,348	2,096	2,040
	1977	369	146,264	281	142,021	16,674	3,837	2,805
Jackson	1972	1,209	320,205	847	311,575	38,126	9,140	7,546
	1977	1,015	482,474	756	471,943	62,152	13,755	8,686
Kalamazoo	1972	1,556	479,216	1,100	468,747	61,159	14,427	12,861
	1977	1,500	798,370	1,163	786,336	105,752	23,497	15,278
Kalkaska	1972	89	12,770	57	11,391	1,206	213	225
	1977	97	33,591	61	31,423	3,173	687	450
Kent	1972	3,536	1,119,875	2,390	1,090,137	129,982	30,537	27,487
	1977	3,172	1,733,723	2,272	1,696,483	222,748	49,339	32,005
Keweenaw	1972	44	1,926	23	1,507	155	21	26
	1977	45	3,688	26	2,964	335	53	49
Lake	1972	97	8,185	54	6,719	757	136	201
	1977	98	12,796	58	10,889	1,171	249	222
Lapeer	1972	368	92,160	247	89,034	8,173	1,889	1,737
	1977	374	159,360	268	153,644	14,945	3,555	2,273
Leelanau	1972	157	17,530	103	16,505	1,695	305	280
	1977	179	26,693	114	24,518	2,560	538	416
Lenawee	1972	876	207,465	597	200,169	22,393	5,090	4,603
	1977	763	303,537	546	294,213	30,921	6,957	4,698
Livingston	1972	480	110,877	301	105,193	11,347	2,553	2,207
	1977	557	225,970	381	218,083	22,643	5,102	3,425
Luce	1972	68	12,495	50	12,219	1,169	259	226
	1977	78	22,409	59	21,468	2,043	485	304

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Mackinac	1972	228	23,846	168	22,560	2,495	367	393
	1977	219	35,823	172	33,767	4,053	746	550
Macomb	1972	3,999	1,526,197	2,743	1,489,171	168,274	39,289	31,506
	1977	4,224	2,702,797	3,093	2,648,380	300,874	69,983	40,639
Manistee	1972	271	42,184	197	40,521	4,148	901	910
	1977	250	63,081	175	60,500	6,224	1,364	998
Marquette	1972	535	110,761	390	106,167	12,252	2,832	2,959
	1977	597	212,969	457	205,112	23,975	5,456	4,206
Mason	1972	283	59,145	197	57,087	5,696	1,254	1,203
	1977	257	81,970	183	78,422	8,335	1,755	1,412
Mecosta	1972	279	52,954	174	49,714	5,645	1,316	1,272
	1977	297	90,783	200	86,339	9,588	2,230	1,602
Menominee	1972	254	36,657	160	34,620	3,249	737	770
	1977	234	64,207	140	59,177	5,680	1,344	1,062
Midland	1972	482	137,811	346	135,161	15,242	3,543	2,887
	1977	467	212,662	339	207,995	23,756	5,643	3,336
Missaukee	1972	91	11,032	51	9,818	800	177	213
	1977	80	18,644	55	17,521	1,538	321	253
Monroe	1972	813	198,519	523	191,006	21,846	5,156	4,385
	1977	713	331,270	516	319,983	33,304	7,590	4,562
Montcalm	1972	448	93,328	285	89,412	8,605	1,936	1,784
	1977	339	146,166	274	139,938	14,832	3,036	2,041
Montmorency	1972	105	11,417	62	9,972	1,035	210	228
	1977	101	21,599	65	19,342	1,943	430	301
Muskegon	1972	1,182	333,467	829	325,052	36,455	8,152	7,556
	1977	1,109	478,025	808	466,523	57,378	12,258	8,261
Newaygo	1972	307	44,185	204	41,414	4,142	862	895
	1977	253	67,034	187	64,170	6,340	1,408	990
Oakland	1972	7,257	2,696,655	4,682	2,620,103	323,886	75,650	58,201
	1977	7,741	4,528,678	5,520	4,433,867	544,196	126,453	73,939
Oceana	1972	213	31,073	137	28,608	2,563	513	581
	1977	209	44,700	134	41,588	4,113	877	672

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Ogemaw	1972	178	34,579	122	32,725	3,679	784	676
	1977	198	55,396	136	52,537	5,211	1,173	736
Ontonagon	1972	132	19,750	86	18,207	1,702	401	409
	1977	124	27,758	73	24,617	2,253	520	451
Osceola	1972	181	23,645	115	21,358	2,234	503	503
	1977	193	36,530	123	32,646	3,092	688	502
Oscoda	1972	74	7,415	49	6,592	721	155	175
	1977	86	13,550	56	12,001	1,351	322	268
Otsego	1972	167	36,092	122	34,404	4,187	887	773
	1977	204	63,476	144	60,154	6,765	1,468	1,110
Ottawa	1972	940	243,085	651	235,237	24,450	5,644	5,517
	1977	1,003	408,594	699	394,810	49,545	10,254	7,315
Presque Isle	1972	162	24,371	110	22,703	2,021	432	442
	1977	152	35,706	100	32,400	3,110	706	518
Roscommon	1972	312	37,873	211	35,168	3,904	729	706
	1977	305	61,482	202	57,190	6,462	1,301	966
Saginaw	1972	1,651	516,065	1,184	503,223	62,724	14,362	12,148
	1977	1,637	848,317	1,239	831,264	102,468	23,730	14,895
St. Clair	1972	1,120	257,497	741	246,529	28,730	6,643	5,705
	1977	1,008	394,258	685	379,301	45,474	10,420	6,804
St. Joseph	1972	527	102,634	345	97,124	10,590	2,451	2,304
	1977	498	160,341	342	154,621	16,176	3,789	2,408
Sanilac	1972	394	61,666	251	57,093	5,002	1,094	1,071
	1977	402	95,154	239	86,277	7,851	1,776	1,145
Schoolcraft	1972	140	17,475	96	16,176	1,514	305	340
	1977	129	26,982	95	25,459	2,611	570	430
Shiawassee	1972	544	121,260	355	115,610	12,186	2,948	2,616
	1977	504	203,312	358	197,371	19,917	4,852	3,022
Tuscola	1972	491	84,583	329	79,963	7,694	1,713	1,548
	1977	470	128,591	312	121,225	11,798	2,832	1,834
Van Buren	1972	533	105,846	345	100,822	10,350	2,306	2,114
	1977	522	159,370	320	152,042	15,700	3,444	2,206

TABLE XXI-8. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	employees 12 March[b]
Washtenaw	1972	1,639	599,139	1,187	587,377	75,450	17,852	14,106
	1977	1,671	981,126	1,242	962,364	123,545	27,488	17,148
Wayne	1972	17,629	5,787,313	12,364	5,623,985	705,374	166,295	130,334
	1977	14,373	7,834,951	10,804	7,661,296	940,110	222,140	126,982
Wexford	1972	270	61,822	202	59,896	6,181	1,367	1,210
	1977	275	109,048	202	105,258	10,788	2,364	1,550
Total	1972	71,795	20,630,308	49,111	19,993,249	2,383,330	553,230	461,845
	1977	67,059	31,912,356	48,431	31,089,750	3,720,097	850,313	523,549

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

a. In 1977, excludes direct selling establishments without payroll. In Michigan there were 5,941 such establishments, with $84,106,000 sales in 1972.

b. Week including 12 March.

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Adrian	1972	297	93,511	235	91,721	11,545	2,671	2,469
	1977	237	126,558	189	124,898	15,039	3,408	2,376
Albion	1972	124	36,438	107	36,038	3,891	853	744
	1977	104	37,508	87	37,026	4,349	1,035	710
Algonac	1972	52	11,991	37	11,397	1,368	304	269
	1977	50	15,662	33	14,966	1,823	414	270
Allegan	1972	98	24,795	67	24,027	2,335	588	477
	1977	101	39,324	66	37,901	3,467	814	505
Allen Park	1972	262	70,034	192	68,044	7,885	1,878	1,890
	1977	221	97,285	167	94,301	11,861	2,899	2,142
Alma	1972	165	47,750	120	46,262	5,068	1,182	1,008
	1977	146	61,909	116	60,179	7,093	1,634	1,062
Alpena	1972	258	69,396	216	68,273	7,737	1,799	1,554
	1977	254	100,442	197	97,941	11,264	2,522	1,657
Ann Arbor	1972	728	280,654	544	276,013	39,084	9,357	7,360
	1977	824	499,241	646	493,478	66,803	15,269	9,844
Bad Axe	1972	84	18,485	65	17,916	1,952	438	387
	1977	69	29,107	54	28,142	3,150	711	443
Battle Creek	1972	536	171,380	377	168,131	21,856	5,065	4,110
	1977	453	197,715	336	194,235	25,398	5,971	3,494
Bay City	1972	579	140,825	415	136,586	17,098	4,042	3,521
	1977	506	214,201	401	208,502	25,008	5,887	3,705
Belding	1972	42	9,670	30	9,351	1,000	264	202
	1977	44	22,446	38	22,210	2,450	511	381
Benton Harbor	1972	336	103,791	219	100,758	11,984	2,729	2,248
	1977	206	104,068	135	101,518	11,893	2,834	1,775
Berkley	1972	154	25,802	102	23,993	3,610	843	819
	1977	138	48,158	107	46,398	7,347	1,698	1,158
Bessemer	1972	39	7,138	27	6,790	595	137	155
	1977	44	11,537	31	11,165	1,028	253	216
Beverly Hills	1972	77	15,179	32	14,065	2,088	468	407
	1977	50	14,003	19	12,837	1,938	471	221

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b] 12 March
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Big Rapids	1972	133	32,264	100	31,489	3,716	852	854
	1977	126	47,270	104	46,245	5,749	1,391	1,002
Birmingham	1972	318	161,127	240	158,657	22,487	5,452	3,707
	1977	392	211,805	316	208,856	28,721	6,874	3,902
Blissfield	1972	61	11,546	43	11,116	1,149	275	283
	1977	51	16,447	42	15,694	1,343	280	252
Bloomfield Hills	1972	92	22,219	62	21,152	3,074	746	716
	1977	62	24,442	43	23,639	3,629	822	526
Boyne City	1972	66	9,757	47	9,300	903	192	185
	1977	72	18,115	56	17,326	1,844	412	290
buchanan	1972	66	17,360	49	16,956	1,648	393	307
	1977	52	19,787	39	19,549	1,903	439	265
Burton	1972	114	33,226	66	31,976	3,689	821	789
	1977	217	190,694	178	189,547	26,287	5,003	3,191
Cadillac	1972	191	50,703	153	49,522	5,303	1,170	1,014
	1977	181	73,337	142	71,900	7,486	1,645	1,043
Caro	1972	93	21,156	78	20,842	2,133	481	439
	1977	97	36,276	79	35,455	3,808	874	543
Center Line	1972	72	52,389	60	51,969	7,250	1,275	775
	1977	80	93,756	61	92,580	8,302	1,840	877
Charlevoix	1972	105	15,138	77	14,333	1,591	325	309
	1977	100	26,424	68	25,633	2,799	615	396
Charlotte	1972	146	35,582	110	35,078	3,740	909	757
	1977	137	52,563	104	51,445	5,775	1,422	953
Cheboygan	1972	131	29,667	101	28,785	2,839	608	613
	1977	138	41,935	113	40,508	4,575	924	618
Chelsea	1972	65	18,880	49	18,538	2,004	462	366
	1977	62	38,684	52	37,589	3,660	932	456
Chesaning	1972	68	14,956	45	14,361	1,303	296	285
	1977	51	29,046	36	28,581	2,303	509	339
Clare	1972	116	20,881	87	19,920	2,299	487	435
	1977	103	39,691	76	38,721	4,013	1,028	556

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b] 12 March
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Clawson	1972	124	38,583	80	37,508	5,259	1,270	1,079
	1977	116	47,347	86	46,334	6,493	1,577	1,018
Clearwater	1972	162	42,789	126	42,046	4,493	1,012	905
	1977	184	66,835	130	64,963	7,116	1,559	1,073
Climax	1972	42	5,869	18	4,933	396	109	108
	1977	39	22,092	22	21,081	2,368	579	341
Davison	1972	88	24,978	58	24,555	2,668	611	470
	1977	64	40,965	49	40,538	3,765	882	485
Dearborn	1972	920	421,498	678	414,113	54,052	12,773	9,687
	1977	908	778,779	734	770,119	93,367	21,548	12,196
Dearborn Heights	1972	422	108,539	292	104,977	12,529	2,932	2,682
	1977	415	173,825	311	167,662	20,471	4,941	3,449
Detroit	1972	9,768	2,724,228	6,945	2,631,696	343,003	82,188	62,811
	1977	6,914	2,968,783	5,142	2,878,924	357,541	86,842	48,457
Dowagiac	1972	145	23,950	92	22,081	2,606	562	653
	1977	145	35,669	90	33,301	3,795	791	495
Durand	1972	53	9,582	36	9,140	933	235	183
	1977	63	32,305	46	31,813	2,577	558	350
East Detroit	1972	305	101,930	207	98,821	10,758	2,599	2,085
	1977	290	206,395	213	201,410	18,969	4,563	2,400
East Grand Rapids	1972	69	13,243	37	12,461	1,685	435	383
	1977	47	18,423	30	17,685	2,546	576	442
East Lansing	1972	231	53,753	164	52,476	7,449	1,775	1,902
	1977	202	97,140	158	95,829	13,558	3,167	2,698
Eaton Rapids	1972	95	16,057	61	15,370	1,665	379	360
	1977	69	25,335	47	24,650	2,326	501	319
Ecorse	1972	117	18,413	83	17,138	2,459	597	540
	1977	92	21,337	63	20,125	3,028	740	457
Escanaba	1972	233	62,804	192	61,533	6,576	1,518	1,448
	1977	234	104,266	190	102,340	10,693	2,524	1,661
Essexville	1972	38	2,752	27	2,615	252	62	86
	1977	63	12,265	48	11,938	1,414	348	332

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Farmington	1972	224	61,787	153	60,187	7,758	1,826	1,449
	1977	199	118,770	151	116,902	13,413	3,210	1,724
Fenton	1972	149	45,228	91	43,886	4,451	1,008	731
	1977	143	96,724	103	95,029	9,129	2,009	1,135
Ferndale	1972	272	109,144	202	106,998	12,589	2,915	1,877
	1977	220	133,478	162	130,383	13,112	3,334	1,463
Flat Rock	1972	67	20,953	53	20,653	2,283	504	417
	1977	71	30,072	54	29,379	3,410	791	526
Flint	1972	1,627	555,200	1,269	545,446	68,341	16,291	13,129
	1977	1,421	688,143	1,147	676,353	82,033	18,918	11,450
Flushing	1972	74	22,642	50	22,273	2,282	555	343
	1977	104	49,584	71	48,207	4,847	1,263	626
Frankenmuth	1972	56	21,290	42	20,673	3,328	677	834
	1977	79	46,755	64	46,059	6,952	1,620	960
Franklin	1972	28	2,186	12	1,413	204	49	56
	1977	39	6,698	28	6,401	1,002	211	163
Fraser	1972	111	24,500	67	23,590	2,897	738	577
	1977	110	34,713	65	31,949	3,934	972	598
Fremont	1972	111	23,023	73	22,134	2,327	490	401
	1977	91	32,144	71	31,232	3,114	703	426
Garden City	1972	220	85,744	150	82,984	8,414	1,830	1,443
	1977	201	130,985	148	128,519	14,389	3,387	1,938
Gaylord	1972	102	26,003	87	25,501	3,425	728	633
	1977	129	48,227	101	46,765	5,128	1,085	848
Gibraltar	1972	15	1,353	9	(D)	(D)	(D)	(D)
	1977	15	(D)	9	(D)	(D)	(D)	(D)
Gladstone	1972	85	12,482	54	11,647	1,036	252	292
	1977	78	16,282	54	14,897	1,347	301	220
Grand Blanc	1972	90	34,065	66	33,569	4,003	904	856
	1977	97	46,954	64	45,866	6,273	1,412	854
Grand Haven	1972	183	49,365	133	48,065	5,514	1,289	1,214
	1977	171	76,007	125	73,531	10,110	2,070	1,339

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Grand Ledge	1972	87	10,232	48	9,183	1,203	283	284
	1977	100	32,001	57	29,904	2,956	688	423
Grand Rapids	1972	1,695	533,190	1,177	519,423	65,991	15,784	13,768
	1977	1,512	756,703	1,108	739,445	103,040	23,589	15,104
Grandville	1972	109	33,611	64	32,633	3,256	687	645
	1977	95	64,682	66	63,353	6,964	1,543	926
Greenville	1972	105	21,737	85	21,490	2,497	591	548
	1977	94	45,837	70	44,903	6,171	1,120	733
Grosse Pointe	1972	104	37,934	63	36,664	5,576	1,346	955
	1977	93	50,474	69	49,974	7,719	1,738	1,057
Grosse Pte. Farms	1972	116	35,090	61	33,816	4,641	1,126	724
	1977	88	46,501	59	45,802	6,181	1,504	831
Grosse Pte. Park	1972	96	30,517	51	29,380	2,897	727	423
	1977	71	32,389	45	31,318	3,463	908	435
Grosse Pte. Shores	1972	39	1,172	1	(D)	(D)	(D)	(D)
	1977	6	(D)	2	(D)	(D)	(D)	(D)
Grosse Pte. Woods	1972	189	47,843	114	45,552	5,152	1,295	1,064
	1977	145	48,103	104	45,579	6,271	1,523	966
Hamtramck	1972	335	64,250	245	61,673	7,606	1,831	1,359
	1977	261	72,112	188	67,370	7,882	1,894	1,105
Hancock	1972	83	19,046	57	18,163	1,859	425	376
	1977	73	25,562	51	24,874	2,712	640	453
Harper Woods	1972	210	144,117	121	141,505	16,518	3,717	3,067
	1977	177	224,854	147	223,766	27,639	6,842	3,766
Hartford	1972	59	8,245	40	7,909	844	178	165
	1977	38	13,174	25	12,881	1,288	293	179
Hastings	1972	114	29,072	86	28,477	3,059	762	564
	1977	119	44,452	79	42,776	4,378	980	636
Hazel Park	1972	171	46,215	120	44,336	5,857	1,354	1,185
	1977	162	59,928	108	57,308	8,043	1.715	1,167
Highland Park	1972	272	104,471	203	102,494	14,261	3,264	2,420
	1977	183	112,706	145	110,031	15,656	3,697	1,919

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b] 12 March
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Hillsdale	1972	149	39,142	90	37,805	4,215	966	853
	1977	132	60,430	96	58,822	6,237	1,411	907
Holland	1972	397	101,330	292	98,399	10,290	2,402	2,267
	1977	350	127,739	255	124,155	13,009	3,042	2,257
Holly	1972	77	15,675	54	15,335	1,317	294	262
	1977	63	18,219	42	17,802	1,600	352	253
Houghton	1972	79	16,111	56	15,480	1,847	420	506
	1977	73	25,970	57	25,230	3,134	727	494
Howell	1972	117	35,930	83	34,802	3,530	821	664
	1977	117	52,614	86	51,861	5,218	1,167	776
Hudson	1972	64	8,876	40	8,498	797	191	212
	1977	54	12,237	37	11,534	1,150	239	178
Hudsonville	1972	28	7,108	21	6,982	660	122	102
	1977	34	9,622	17	9,163	928	192	146
Huntington Woods	1972	45	5,958	14	5,142	487	135	80
	1977	32	4,630	10	3,859	472	166	67
Inkster	1972	159	45,706	122	44,756	5,045	1,204	1,037
	1977	135	63,639	94	61,472	7,577	1,755	1,011
Ionia	1972	136	34,198	108	33,399	3,304	764	717
	1977	112	40,966	90	40,333	4,126	926	681
Iron Mountain	1972	158	37,332	110	35,970	4,057	954	859
	1977	171	52,464	129	50,984	6,368	1,526	957
Iron River	1972	99	18,234	73	17,609	1,799	404	422
	1977	104	26,968	72	26,109	2,544	581	491
Ironwood	1972	157	30,939	113	29,693	3,124	726	740
	1977	142	40,812	105	39,615	4,252	1,087	778
Ishpeming	1972	121	24,555	88	23,348	2,418	568	604
	1977	103	28,273	78	27,122	2,578	631	494
Ithaca	1972	64	10,922	41	10,279	1,034	254	205
	1977	55	15,753	41	15,142	1,684	423	255
Jackson	1972	581	174,544	435	170,750	22,655	5,627	4,395
	1977	457	202,542	368	199,420	26,951	6,531	3,947

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Kalamazoo	1972	783	271,735	587	266,981	37,043	8,892	7,426
	1977	713	397,155	575	392,238	53,158	12,623	8,076
Keego Harbor	1972	27	3,121	22	2,922	490	105	139
	1977	37	6,213	29	5,852	716	164	140
Kentwood	1972	131	64,685	88	63,404	8,460	1,918	1,675
	1977	180	116,380	134	114,979	16,546	3,598	2,478
Kingsford	1972	48	14,098	38	13,724	1,258	271	274
	1977	44	28,331	29	28,049	2,601	587	449
Lake Orion	1972	75	19,356	38	18,220	1,705	419	277
	1977	77	24,614	42	23,234	2,304	576	386
L'Anse	1972	51	9,522	44	9,419	854	176	178
	1977	57	19,421	43	18,839	1,572	344	327
Lansing	1972	1,161	435,929	858	429,569	55,815	12,766	10,889
	1977	984	628,893	747	615,994	76,489	17,259	10,526
Lapeer	1972	111	50,701	92	50,273	4,876	1,145	925
	1977	131	94,721	103	97,716	9,293	2,253	1,356
Lathrup Village	1972	152	45,523	80	43,533	5,962	1,278	1,042
	1977	187	76,237	122	73,591	8,566	1,644	927
Laurim	1972	30	4,407	20	4,194	412	97	84
	1977	39	11,606	29	11,162	958	233	168
Lincoln Park	1972	368	187,157	276	184,386	23,122	5,477	4,408
	1977	332	237,781	284	234,795	32,764	7,528	4,176
Livonia	1972	731	398,749	508	393,374	51,248	11,593	9,306
	1977	798	616,067	613	608,574	77,874	17,720	10,000
Lowell	1972	76	18,056	53	17,536	1,753	371	285
	1977	51	29,583	36	28,939	2,311	507	302
Ludington	1972	148	31,370	113	30,444	3,292	748	728
	1977	149	35,016	110	33,436	3,922	900	711
Madison Heights	1972	249	80,688	168	78,198	9,921	2,404	2,043
	1977	235	110,163	172	107,216	14,153	3,262	2,244
Manistee	1972	140	25,909	114	25,329	2,652	636	655
	1977	141	37,144	103	35,983	3,843	844	627

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Manistique	1972	95	14,993	67	14,238	1,357	270	304
	1977	82	23,440	67	22,933	2,284	508	368
Marine City	1972	81	15,582	56	14,772	1,507	366	330
	1977	79	26,262	56	24,577	2,431	546	395
Marquette	1972	242	61,327	184	59,573	7,500	1,734	1,722
	1977	281	109,182	238	107,009	13,861	3,171	2,187
Marysville	1972	45	9,170	35	8,980	879	196	178
	1977	58	18,308	43	17,996	1,875	483	397
Marshall	1972	159	28,834	109	27,436	3,227	782	800
	1977	152	47,841	111	46,785	5,251	1,170	927
Mason	1972	89	16,688	52	16,050	1,726	422	348
	1977	97	38,963	68	37,325	3,564	823	595
Melvindale	1972	83	33,304	63	32,718	3,257	753	652
	1977	71	45,208	54	44,078	5,649	1,319	918
Menominee	1972	143	27,379	96	26,496	2,587	585	594
	1977	125	50,533	85	48,596	4,871	1,150	852
Midland	1972	402	127,756	286	125,516	14,374	3,342	2,647
	1977	369	(D)	278	(D)	(D)	(D)	(D)
Milan	1972	68	16,423	44	15,787	1,494	341	257
	1977	67	25,698	40	(D)	(D)	(D)	(D)
Milford	1972	75	20,250	53	19,388	1,902	456	320
	1977	82	32,604	48	31,645	2,914	658	367
Monroe	1972	363	122,269	257	118,779	14,338	3,375	2,690
	1977	246	92,173	186	89,146	10,037	2,237	1,466
Mount Clemens	1972	304	103,025	214	100,552	10,814	2,660	1,921
	1977	273	139,325	182	135,288	15,762	3,814	2,081
Mount Morris	1972	77	17,679	46	16,746	1,656	401	292
	1977	70	29,400	51	28,248	2,525	548	305
Mount Pleasant	1972	216	60,317	162	59,076	7,482	1,677	1,647
	1977	257	114,980	211	113,136	13,856	3,172	2,333
Muskegon	1972	425	130,019	309	126,669	16,138	3,639	3,201
	1977	372	164,636	295	161,928	20,097	4,539	3,063

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Muskegon Heights	1972	153	32,221	118	31,322	3,797	869	799
	1977	126	31,244	101	30,242	3,897	892	615
Munising	1972	79	10,834	63	10,618	1,040	230	267
	1977	76	17,972	55	17,315	1,735	404	309
Negaunee	1972	68	10,244	47	9,771	936	209	254
	1977	60	12,466	41	11,555	1,165	275	341
New Baltimore	1972	72	12,154	50	11,588	1,138	246	211
	1977	61	21,877	41	20,969	2,221	492	311
New Buffalo	1972	53	6,628	40	6,400	860	179	259
	1977	64	11,172	39	10,522	1,455	354	297
Niles	1972	281	67,511	180	65,157	7,647	1,772	1,573
	1977	188	65,340	130	63,481	7,916	1,892	1,276
North Muskegon	1972	44	7,511	28	7,181	813	200	173
	1977	43	19,094	31	18,905	2,199	516	270
Northville	1972	93	26,079	63	25,256	2,813	657	628
	1977	109	42,915	79	42,122	4,738	1,145	883
Norton Shores	1972	123	61,787	83	61,051	5,571	1,170	1,129
	1977	126	107,891	96	106,928	15,140	2,730	1,664
Norway	1972	51	5,645	38	5,323	428	101	125
	1977	43	10,153	32	9,824	830	190	123
Novi	1972	73	13,884	39	13,010	1,192	270	287
	1977	139	72,295	102	69,995	8,089	861	509
Oak Park	1972	390	108,802	202	102,863	12,835	3,043	2,335
	1977	360	158,917	209	153,171	20,279	4,810	2,492
Otsego	1972	46	7,325	34	6,978	853	204	218
	1977	54	12,158	33	11,626	1,343	298	229
Owosso	1972	224	47,491	173	46,039	5,832	1,344	1,339
	1977	198	61,294	154	60,023	7,307	1,810	1,228
Oxford	1972	57	8,051	39	7,633	834	188	198
	1977	52	12,726	36	11,919	1,424	295	244
Paw Paw	1972	62	16,220	51	16,070	1,784	375	350
	1977	84	30,094	60	29,596	2,858	600	453

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Petoskey	1972	213	57,696	176	56,946	6,806	1,483	1,220
	1977	228	98,791	191	97,094	11,604	2,569	1,675
Plainwell	1972	94	13,477	57	12,589	1,490	317	341
	1977	84	25,839	51	23,767	2,310	583	301
Pleasant Ridge	1972	27	3,385	16	3,236	566	129	103
	1977	16	3,281	11	3,103	378	107	98
Plymouth	1972	166	54,032	118	52,726	5,796	1,518	988
	1977	184	86,803	132	84,529	9,042	2,002	1,136
Pontiac	1972	544	224,606	410	219,869	27,309	6,470	4,738
	1977	439	305,080	371	301,297	35,947	8,351	4,468
Portage	1972	260	92,771	187	91,116	10,890	2,533	2,389
	1977	294	176,371	225	173,659	24,818	4,911	3,212
Port Huron	1972	456	130,714	334	127,667	16,859	3,904	3,252
	1977	407	178,775	310	175,282	22,760	5,377	3,480
Portland	1972	62	10,455	38	9,910	960	219	223
	1977	57	17,586	33	16,704	2,193	390	328
Richmond	1972	84	22,799	52	21,955	1,846	464	315
	1977	77	38,256	51	37,113	2,953	780	410
River Rouge	1972	111	16,607	85	15,674	1,776	415	402
	1977	84	19,231	65	18,345	1,912	448	325
Riverview	1972	77	18,744	54	18,386	2,583	640	707
	1977	105	42,339	75	41,495	5,882	1,245	982
Rochester	1972	170	47,569	123	45,836	5,550	1,282	1,164
	1977	179	83,245	140	81,555	10,030	2,480	1,783
Rockwood	1972	22	2,343	14	2,204	166	38	51
	1977	23	13,400	18	13,163	1,008	254	114
Rogers City	1972	72	12,753	55	12,331	1,195	274	266
	1977	75	19,836	56	18,349	1,707	404	320
Romeo	1972	81	11,047	47	10,103	1,004	246	225
	1977	67	16,744	42	15,524	1,316	290	237
Romulus	1972	145	28,643	85	26,863	5,602	1,384	1,144
	1977	144	57,468	97	55,019	10,018	2,383	1,407

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Roosevelt Park	1972	32	16,033	23	15,953	2,034	455	517
	1977	33	22,888	25	22,623	3,332	785	614
Roseville	1972	406	224,489	285	221,229	27,880	6,587	5,143
	1977	370	303,646	296	299,605	38,945	9,020	5,505
Royal Oak	1972	681	214,804	469	208,895	28,036	6,742	4,889
	1977	578	338,555	416	330,972	40,958	9,668	5,308
Saginaw	1972	748	211,031	549	205,558	26,837	6,366	5,029
	1977	645	254,217	484	247,136	32,916	7,747	4,642
St. Clair	1972	88	18,471	61	17,518	1,854	402	347
	1977	66	24,574	42	23,325	3,036	651	400
St. Clair Shores	1972	547	148,968	357	142,993	16,203	3,749	3,360
	1977	614	245,257	422	237,914	28,867	6,714	4,077
St. Ignace	1972	70	10,278	60	10,117	1,087	170	163
	1977	70	15,416	56	14,923	1,760	362	227
St. Johns	1972	108	28,251	77	27,263	2,785	613	560
	1977	111	57,977	81	57,067	6,108	1,472	882
St. Joseph	1972	192	30,134	131	28,514	4,107	974	1,006
	1977	165	74,047	126	72,308	9,858	2,325	1,392
St. Louis	1972	65	7,834	36	7,368	831	189	204
	1977	66	12,111	42	11,340	1,329	298	236
Saline	1972	50	13,451	37	13,225	1,572	373	330
	1977	66	23,669	43	23,001	2,710	605	433
Sault Ste. Marie	1972	224	53,770	159	50,126	5,621	1,222	1,116
	1977	215	72,234	165	69,108	8,065	1,841	1,163
Southfield	1972	712	419,386	423	410,494	47,258	10,890	8,401
	1977	983	778,169	731	767,267	97,704	23,801	14,315
Southgate	1972	251	171,951	200	170,143	18,547	4,473	3,159
	1977	231	281,200	200	279,302	29,523	7,117	3,538
South Haven	1972	97	31,377	79	30,677	3,202	705	619
	1977	119	48,481	87	47,567	5,918	1,361	721
South Lyon	1972	44	9,047	27	8,747	1,015	237	213
	1977	57	18,437	31	17,256	1,990	413	285

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	12 March
Sparta	1972	65	9,636	44	9,195	786	184	204
	1977	55	14,326	38	13,849	1,159	286	196
Springfield	1972	45	10,799	28	10,370	1,230	288	212
	1977	33	8,970	24	8,841	1,358	332	230
Springlake	1972	68	8,108	44	7,754	823	176	208
	1977	54	9,354	28	8,138	815	190	173
Sterling Heights	1972	271	124,121	178	122,199	13,515	2,895	2,579
	1977	423	373,721	324	370,143	41,061	9,231	5,453
Sturgis	1972	172	44,575	131	43,025	5,111	1,215	1,101
	1977	151	61,069	108	59,274	6,444	1,465	945
Swartz Creek	1972	61	7,700	37	7,265	963	225	190
	1977	43	8,557	21	7,830	967	196	161
Taylor	1972	408	194,826	280	190,725	21,590	4,632	3,999
	1977	425	345,266	346	341,901	39,503	8,691	5,232
Tecumseh	1972	104	23,252	75	22,064	2,325	542	497
	1977	102	37,433	78	36,140	3,957	852	557
Three Rivers	1972	150	32,612	101	31,519	3,315	740	661
	1977	136	44,717	104	43,872	4,745	1,169	641
Traverse City	1972	376	121,655	289	119,610	15,618	3,437	2,778
	1977	429	156,105	319	151,997	22,089	5,245	3,169
Trenton	1972	151	38,158	109	37,206	4,418	973	1,043
	1977	150	65,397	112	64,132	6,975	1,569	1,093
Troy	1972	319	313,063	204	310,053	37,993	8,887	6,047
	1977	486	568,439	367	562,762	67,574	15,711	8,427
Utica	1972	115	28,441	88	27,856	3,333	771	665
	1977	115	46,196	90	44,976	5,306	1,214	769
Vassar	1972	69	15,148	49	14,584	1,320	314	277
	1977	75	23,534	48	22,528	2,080	477	309
Wakefield	1972	40	3,276	26	2,874	307	90	134
	1977	34	4,210	22	3,861	402	104	101
Walker	1972	129	84,297	85	83,301	7,275	1,670	1,403
	1977	125	145,496	97	144,086	20,006	3,686	2,209

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Walled Lake	1972	58	21,476	47	21,195	2,314	497	391
	1977	78	42,278	61	41,256	4,674	1,131	833
Warren	1972	949	452,123	695	443,758	49,282	11,440	9,366
	1977	961	702,221	719	689,662	82,384	19,267	11,078
Wayne	1972	184	84,541	145	82,855	9,488	2,234	1,652
	1977	168	133,202	140	131,683	13,109	3,206	1,520
Westland	1972	405	213,958	260	210,874	22,873	4,962	4,232
	1977	434	340,877	323	335,955	37,549	9,022	5,299
Whitehall	1972	62	11,109	44	10,526	1,088	247	275
	1977	62	15,883	42	15,091	1,723	388	306
Williamston	1972	57	8,348	34	7,938	750	186	170
	1977	49	9,645	31	9,265	888	212	144
Woodhaven	1972	29	22,037	18	21,887	2,653	568	462
	1977	43	61,906	37	61,741	7,193	1,589	1,007
Wolverine Lake	1972	10	941	5	713	49	13	12
	1977	11	978	3	566	39	9	9
Wyandotte	1972	290	72,373	218	69,962	8,725	2,125	1,744
	1977	269	70,263	188	66,205	8,634	2,135	1,326
Wyoming	1972	579	199,643	438	196,046	24,146	5,577	5,364
	1977	461	269,479	343	263,515	35,105	8,073	5,373
Ypsilanti	1972	256	71,159	189	68,953	9,153	2,165	1,843
	1977	206	70,186	147	67,494	9,493	2,308	1,650
Zeeland	1972	64	13,501	48	12,732	1,337	313	358
	1977	64	19,751	43	18,318	2,169	493	429
			Central Business Districts					
Ann Arbor	1972	148	48,262	n.a.	n.a.	8,509	2,061	1,814
	1977	190	69,207	n.a.	n.a.	12,773	2,858	2,192
Battle Creek	1972	52	25,041	n.a.	n.a.	3,918	n.a.	836
	1977	91	35,183	n.a.	n.a.	5,482	n.a.	853
Bay City	1972	148	67,297	n.a.	n.a.	9,133	2,201	1,769
	1979	126	73,265	n.a.	n.a.	10,235	2,475	1,447
Detroit	1972	609	291,442	n.a.	n.a.	55,864	13,254	9,717
	1977	473	241,729	n.a.	n.a.	47,600	12,237	7,028

TABLE XXI-9. SELECTED DATA FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Central business districts (cont.)								
East Lansing	1972	53	16,531	n.a.	n.a.	2,995	n.a.	759
	1979	76	26,119	n.a.	n.a.	4,552	n.a.	1,060
Flint	1972	226	84,350	n.a.	n.a.	13,794	3,277	2,608
	1979	198	73,342	n.a.	n.a.	11,674	2,629	1,494
Grand Rapids	1972	137	58,500	n.a.	n.a.	11,446	2,793	2,180
	1977	116	67,420	n.a.	n.a.	14,427	3,499	2,028
Jackson	1972	98	49,084	n.a.	n.a.	7,153	n.a.	1,378
	1979	86	46,066	n.a.	n.a.	6,764	n.a.	898
Kalamazoo	1972	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1979	165	92,047	n.a.	n.a.	12,597	2,994	1,810
Lansing	1972	108	45,019	n.a.	n.a.	9,291	1,998	1,907
	1979	101	44,957	n.a.	n.a.	7,395	1,792	1,325
Muskegon	1972	34	19,853	n.a.	n.a.	3,209	n.a.	631
	1979	52	42,792	n.a.	n.a.	6,293	n.a.	949
Saginaw	1972	101	25,467	n.a.	n.a.	4,590	n.a.	865
	1979	69	30,881	n.a.	n.a.	6,563	n.a.	1,107
Pontiac	1972	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1977	47	14,754	n.a.	n.a.	2,133	n.a.	275

SOURCE: Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; Bureau of the Census, 1977 Census of Retail Trade, Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; Bureau of the Census, 1972 Census of Retail Trade, Major Retail Centers in Standard Metropolitan Statistical Areas, Michigan (Washington, D.C.: 1975), RC72-C-23, Table 1 for each SMSA; and Bureau of the Census, 1977 Census of Retail Trade, Major Retail Centers in Standard Metropolitan Statistical Areas, Michigan (Washington, D.C.: 1980), RC77-C-23, Tables 1, 5, and 6 for each SMSA.

a. Excludes direct selling establishments without payroll in 1977.

b. Week including 12 March.

(D): Data withheld to avoid disclosing figures for individual companies.

n.a.: not available.

TABLE XXI-10. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA SALES BY RETAIL TRADE ESTABLISHMENTS: 1977

County	1972	1977	County	1972	1977
Emmet	3,757	5,599	Montmorency	2,003	2,959
Grand Traverse	3,574	4,963	Branch	1,984	2,946
Wexford	3,001	4,868	St. Joseph	1,848	2,921
Oakland	2,925	4,580	Marquette	1,626	2,913
Otsego	3,111	4,439	Charlevoix	1,965	2,911
Eaton	2,673	4,261	Gratiot	2,100	2,897
Crawford	2,833	4,204	Manistee	1,999	2,880
Cheboygan	2,886	4,054	Isabella	1,705	2,862
Genesee	2,465	4,052	Ionia	1,669	2,837
Kent	2,703	4,019	Huron	1,950	2,830
Macomb	2,392	3,945	Ottawa	1,853	2,795
Washtenaw	2,504	3,906	Iosco	2,059	2,773
Kalamazoo	2,372	3,894	Houghton	1,824	2,697
Roscommon	3,293	3,891	Chippewa	1,945	2,653
Dickinson	2,523	3,816	Livingston	1,727	2,615
Saginaw	2,304	3,731	Mecosta	1,731	2,609
Ingham	2,509	3,718	Van Buren	1,779	2,558
Ogemaw	2,723	3,621	Monroe	1,611	2,552
Alpena	2,625	3,609	Gladwin	1,743	2,546
Berrien	2,291	3,533	Presque Isle	1,846	2,532
Lenawee	2,494	3,517	Ontonagon	1,829	2,523
Bay	2,320	3,508	Lapeer	1,673	2,467
Delta	2,274	3,331	Menominee	1,472	2,451
Benzie	2,205	3,320	Antrim	1,755	2,446
Mackinac	2,315	3,317	Shiawassee	1,676	2,415
Calhoun	2,316	3,270	Alger	1,673	2,399
Mason	2,424	3,253	Hillsdale	1,569	2,374
Jackson	2,228	3,245	Tuscola	1,672	2,355
Montcalm	2,249	3,241	Allegan	1,698	2,346
Wayne	2,182	3,231	Alcona	1,634	2,324
Iron	2,009	3,131	Oceana	1,618	2,129
Schoolcraft	2,095	3,119	Clinton	1,532	2,121
Clare	2,344	3,090	Oscoda	1,426	2,117
Baraga	1,749	3,089	Newaygo	1,534	2,075
Luce	1,666	3,070	Leelanau	1,524	2,053
Midland	2,127	3,069	Osceola	1,433	2,007
Kalkaska	2,060	3,054	Missaukee	1,433	1,983
Arenac	2,203	3,040	Cass	1,337	1,868
Muskegon	2,105	3,010	Lake	1,279	1,802
Gogebic	2,131	3,007	Barry	1,198	1,678
St. Clair	2,080	2,998	Keweenaw	837	1,537
Sanilac	2,040	2,987	Michigan	2,285	3,488
			United States	2,204	3,342

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-11. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES BY RETAIL TRADE ESTABLISHMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Emmet	92.7	88.7	Bay	55.9	50.6
Crawford	90.6	85.9	Marquette	44.8	50.4
Wexford	88.6	84.4	Alcona	56.2	49.7
Roscommon	96.8	83.6	Saginaw	49.8	49.3
Cheboygan	86.0	79.0	Genesee	51.0	49.3
Ogemaw	90.2	78.5	Ingham	52.6	48.9
Otsego	86.7	76.3	Muskegon	52.2	48.8
Grand Traverse	80.8	71.9	Washtenaw	49.9	48.5
Kalkaska	68.5	65.6	Macomb	46.0	48.0
Mecosta	63.8	64.9	Menominee	45.7	47.7
Clare	74.6	64.7	Jackson	48.5	47.2
Mackinac	70.2	63.3	St. Joseph	48.4	47.2
Alpena	72.1	62.3	Oakland	47.1	47.1
Mason	67.1	61.8	Huron	51.5	46.9
Delta	65.9	61.5	St. Clair	49.5	46.5
Eaton	58.7	60.9	Gratiot	50.4	45.5
Baraga	47.7	60.8	Branch	53.0	45.4
Schoolcraft	66.1	60.6	Antrim	50.9	45.4
Montmorency	61.0	60.4	Missaukee	47.3	45.2
Benzie	57.7	59.9	Shiawassee	42.6	44.0
Iron	63.0	59.2	Calhoun	48.6	43.9
Dickinson	64.4	58.2	Van Buren	46.9	43.8
Isabella	54.3	58.1	Osceola	46.7	43.7
Montcalm	61.7	57.6	Oceana	49.6	42.6
Kent	58.1	56.9	Sanilac	44.0	42.4
Chippewa	59.6	56.1	Ottawa	41.8	42.1
Houghton	61.2	56.0	Lake	41.6	41.7
Gogebic	59.7	55.8	Newaygo	42.5	41.5
Alger	55.6	55.4	Allegan	46.0	40.9
Iosco	57.8	54.3	Hillsdale	40.3	39.3
Arenac	66.3	54.2	Livingston	39.8	39.2
Gladwin	53.8	54.0	Wayne	42.1	38.8
Ontonagon	53.2	53.9	Lapeer	40.3	38.7
Presque Isle	60.2	53.8	Midland	43.6	38.6
Luce	51.1	53.2	Monroe	36.6	37.3
Oscoda	52.1	53.0	Tuscola	41.9	37.1
Lenawee	56.6	52.7	Keweenaw	27.7	33.6
Berrien	49.3	52.4	Leelanau	39.1	33.2
Ionia	49.0	52.2	Clinton	34.4	32.8
Kalamazoo	51.7	52.1	Barry	31.3	29.8
Charlevoix	53.2	51.4	Cass	30.2	28.5
Manistee	57.0	51.1	Michigan	47.5	45.9
			United States	49.1	47.5

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1978), RC77-A-23, Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-12. RANKING OF MICHIGAN COUNTIES ACCORDING TO NUMBER OF INHABITANTS PER RETAIL TRADE ESTABLISHMENT: 1977

County	1972	1977	County	1972	1977
Monroe	152	182	Branch	107	102
Clinton	138	174	Oceana	90	100
Lapeer	150	173	Houghton	91	100
Wayne	150	169	Mason	86	98
Macomb	160	162	Shiawassee	93	98
Barry	131	161	Chippewa	88	98
Livingston	134	155	Delta	93	96
Ingham	136	152	Osceola	91	94
Washtenaw	146	150	Luce	110	94
Genesee	134	150	Presque Isle	81	93
Midland	134	148	Baraga	81	92
Jackson	119	147	Alpena	91	92
Ottawa	140	146	Ontonagon	82	89
Muskegon	134	143	Manistee	78	88
Cass	121	141	Alcona	79	88
Saginaw	136	139	Antrim	76	87
Isabella	148	138	Clare	63	87
St. Joseph	121	138	Iosco	75	86
Kalamazoo	130	137	Dickinson	81	84
Kent	117	136	Wexford	76	81
Ionia	110	134	Huron	76	81
Sanilac	113	131	Arenac	66	80
Calhoun	111	128	Charlevoix	68	80
Oakland	127	128	Alger	70	78
Newaygo	94	128	Ogemaw	71	77
Bay	112	127	Grand Traverse	76	76
Allegan	111	125	Crawford	63	75
Eaton	110	124	Oscoda	70	74
Marquette	127	122	Gogebic	75	74
Van Buren	112	119	Leelanau	73	73
Hillsdale	104	118	Lake	66	72
Missaukee	85	118	Montmorency	54	72
Mecosta	110	117	Iron	69	70
Tuscola	103	116	Otsego	69	70
Berrien	101	114	St. Clair	60	70
Kalkaska	70	113	Benzie	58	67
Lenawee	95	113	Cheboygan	61	67
Montcalm	93	113	Emmet	54	57
Menominee	98	112	Keweenaw	52	53
Gladwin	91	111	Roscommon	37	52
Gratiot	96	109	Mackinac	45	49
Schoolcraft	93	103	Michigan	126	136
			United States	117	117

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-13. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES PER RETAIL TRADE ESTABLISHMENT: 1977

County	1972	1977	County	1972	1977
Macomb	381,165	639,867	Branch	211,299	300,933
Genesee	330,117	607,389	Allegan	188,875	292,696
Washtenaw	365,552	587,149	Luce	183,750	287,295
Oakland	371,594	585,025	Baraga	141,779	285,165
Ingham	340,203	563,910	Gladwin	159,130	281,650
Kent	316,707	546,571	Ogemaw	194,264	279,778
Wayne	328,284	545,116	Hillsdale	163,613	279,386
Kalamazoo	307,979	532,247	Menominee	144,319	274,389
Eaton	292,782	526,304	Tuscola	172,267	273,598
Saginaw	312,577	518,214	Cheboygan	176,904	271,627
Jackson	264,851	475,344	Barry	156,669	270,886
Monroe	144,181	464,614	Houghton	165,887	268,955
Midland	285,915	455,379	Clare	147,934	268,042
Bay	260,758	447,058	Newaygo	143,925	264,957
Muskegon	282,121	431,041	Cass	161,768	263,746
Lapeer	250,435	426,096	Chippewa	171,062	258,852
Calhoun	256,566	418,537	Manistee	155,661	252,324
Ottawa	258,601	407,372	Arenac	146,033	243,235
Livingston	230,994	405,691	Iosco	154,743	239,055
St. Joseph	222,904	403,397	Shiawassee	156,513	236,701
Berrien	232,350	402,559	Presque Isle	150,438	234,908
Lenawee	236,832	397,820	Missaukee	121,231	233,050
Wexford	228,970	396,538	Charlevoix	133,353	232,886
Isabella	251,592	396,379	Huron	148,251	228,784
Sanilac	229,908	391,129	Ontonagon	149,621	223,855
Ionia	183,896	379,589	Gogebic	159,445	223,309
Grand Traverse	270,790	375,786	Benzie	128,503	222,709
Clinton	211,188	368,729	Iron	138,262	219,788
Montcalm	208,321	366,336	Oceana	145,883	213,876
Marquette	207,030	356,732	Montmorency	108,733	213,851
Kalkaska	143,483	346,299	Antrim	133,335	213,825
Alpena	237,909	332,928	St. Clair	124,821	209,163
Schoolcraft	194,751	321,970	Alcona	128,515	203,385
Dickinson	203,527	319,901	Roscommon	121,388	201,580
Delta	211,025	319,542	Osceola	130,635	189,275
Mason	208,993	318,949	Alger	117,695	186,627
Emmet	202,956	316,784	Mackinac	104,588	163,575
Crawford	177,071	316,174	Oscoda	100,203	157,558
Gratiot	200,906	315,088	Leelanau	111,656	149,123
Otsego	216,120	311,157	Lake	84,381	130,571
Mecosta	189,799	305,667	Keweenaw	43,773	81,956
Van Buren	198,585	305,307	Michigan	287,350	475,885
			United States	239,975	389,815

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-14. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in retail trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Clare	23.62	11,065	22.49	12,344
Roscommon	23.13	8,084	22.36	8,648
Cheboygan	13.89	12,794	18.79	13,539
Lake	17.22	1,945	17.94	2,181
Montmorency	17.45	2,861	17.78	3,611
Arenac	15.35	5,433	17.69	6,369
Missaukee	18.46	3,018	17.52	3,808
Gladwin	17.15	5,525	17.10	6,348
Emmet	16.45	16,017	16.80	18,726
Schoolcraft	16.45	4,808	16.42	5,245
Ogemaw	16.35	6,420	16.38	7,435
Alcona	(D)	(D)	16.32	2,747
Crawford	(D)	(D)	15.75	4,740
Gogebic	15.19	8,023	15.62	8,989
Grand Traverse	15.50	41,945	15.59	50,482
Mackinac	15.54	6,238	15.17	6,906
Livingston	14.93	30,661	14.82	35,920
Iron	14.06	5,630	14.61	6,345
Chippewa	11.61	12,666	13.95	13,378
Benzie	15.08	4,523	13.91	4,930
Otsego	12.55	8,031	13.47	9,970
Isabella	12.78	22,198	13.18	26,893
Oceana	14.05	5,953	13.07	6,928
Houghton	13.24	14,152	13.06	15,318
Eaton	12.74	20,694	12.75	23,238
Clinton	12.93	12,326	12.06	13,733
Shiawassee	11.61	23,675	11.94	26,047
Leelanau	12.18	3,268	11.82	3,964
Wexford	11.98	12,154	11.79	13,369
Delta	12.32	18,742	11.65	19,378
Kent	11.80	317,758	11.65	365,883
Newaygo	11.81	9,476	11.60	10,706
Kalkaska	11.04	3,868	11.34	4,413
Bay	11.36	60,838	11.31	65,776
Alpena	11.56	16,208	11.30	18,321

TABLE XXI-14. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in retail trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Allegan	10.03	21,356	11.26	24,667
Mecosta	11.41	10,003	11.22	11,290
Oscoda	11.53	1,491	11.18	1,632
Dickinson	10.68	13,930	11.00	16,386
Lapeer	11.14	20,663	10.97	23,475
Oakland	10.90	718,829	10.80	827,096
Iosco	10.49	11,376	10.71	12,666
Montcalm	10.67	17,441	10.71	19,575
St. Clair	10.91	53,880	10.64	59,759
Tuscola	10.51	17,897	10.51	20,236
Antrim	10.89	4,653	10.30	5,432
Mason	10.79	10,045	10.27	11,020
Barry	10.58	11,552	10.21	12,789
Ionia	11.09	17,225	10.19	18,933
Sanilac	10.60	13,435	10.19	14,969
Monroe	9.95	42,299	10.13	46,872
Manistee	9.96	8,242	9.95	9,581
Keweenaw	10.28	471	9.71	506
Allegan	10.04	21,356	9.66	24,667
Jackson	9.82	77,310	9.56	86,023
Kalamazoo	9.31	124,439	9.46	141,360
Berrien	9.72	87,155	9.44	93,242
Presque Isle	8.86	4,002	9.36	4,862
Macomb	7.95	306,223	9.28	415,059
Lenawee	8.76	36,321	9.15	40,755
Van Buren	9.35	17,619	9.06	19,044
Marquette	9.36	32,202	9.02	37,223
Luce	9.71	3,179	8.84	3,162
Gratiot	9.58	16,805	8.81	16,747
Charlevoix	8.44	6,133	8.79	7,465
Branch	8.03	14,966	8.69	18,436
Muskegon	8.76	68,970	8.63	76,649
Hillsdale	9.33	14,323	8.59	14,982
Osceola	10.07	5,292	8.49	5,106
Ottawa	8.64	57,316	8.48	66,840

TABLE XXI-14. LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in retail trade			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Baraga	8.67	2,368	8.42	2,705
Huron	9.82	13,182	8.40	13,723
Cass	9.37	13,182	8.25	13,711
Calhoun	7.87	69,596	8.18	79,699
Menominee	7.99	6,703	8.09	7,864
St. Joseph	7.78	18,695	8.08	21,829
Ingham	7.88	179,790	7.81	201,464
Saginaw	7.80	120,585	7.72	133,485
Wayne	7.60	1,503,260	7.36	1,551,887
Ontonagon	(D)	(D)	7.30	3,720
Genesee	6.80	238,104	6.74	261,618
Washtenaw	6.75	140,891	6.43	157,732
Midland	5.13	28,076	5.38	32,249
Michigan	8.91	4,952,137	8.78	5,515,441
United States (millions)	10.08	117,605	9.99	131,687

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-15. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Macomb	97	36	Montcalm	42	12
Missaukee	56	26	Washtenaw	55	12
Montmorency	81	26	Barry	65	11
Otsego	75	24	Clinton	45	11
Branch	60	23	Iosco	36	11
Charlevoix	29	22	Jackson	48	11
Isabella	85	21	Mackinac	38	11
Leelanau	45	21	Monroe	37	11
Presque Isle	32	21	Muskegon	48	11
Grand Traverse	81	20	Saginaw	42	11
Dickinson	67	18	St. Clair	46	11
Antrim	41	17	Sanilac	20	11
Arenac	66	17	Genesee	48	10
Emmet	54	17	Ionia	49	10
Livingston	85	17	Mason	41	10
Menominee	40	17	Shiawassee	39	10
Ottawa	72	17	Wexford	53	10
St. Joseph	16	17	Benzie	60	9
Allegan	44	16	Oscoda	24	9
Manistee	71	16	Schoolcraft	63	9
Marquette	17	16	Bay	45	8
Oceana	17	16	Houghton	36	8
Ogemaw	47	16	Van Buren	19	8
Calhoun	42	15	Berrien	31	7
Gladwin	56	15	Keweenaw	72	7
Kent	4	15	Roscommon	41	7
Midland	65	15	Alger	40	6
Oakland	74	15	Cheboygan	55	6
Baraga	32	14	Chippewa	35	6
Kalamazoo	75	14	Hillsdale	19	5
Kalkaska	94	14	Cass	40	4
Lapeer	51	14	Huron	12	4
Alpena	45	13	Delta	32	3
Iron	47	13	Wayne	20	3
Mecosta	59	13	Gratiot	19	0
Newaygo	53	13	Luce	63	- 1
Tuscola	41	13	Osceola	21	- 4
Clare	53	12	Alcona	28	(D)
Eaton	15	12	Crawford	49	(D)
Gogebic	38	12	Ontonagon	29	(D)
Ingham	60	12			
Lake	27	12	Michigan	44	11
Lenawee	24	12	United States	52	12

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-16. NUMBER OF ESTABLISHMENTS AND SALES, AUTOMOTIVE DEALERS IN MICHIGAN, BY COUNTY: 1972 and 1977

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	5	8	(D)	(D)	Gladwin	11	16	5,661	11,106
Alger	4	5	1,315	4,151	Gogebic	17	14	7,027	11,611
Allegan	64	70	37,499	60,621	Grand Traverse	36	43	27,125	50,108
Alpena	28	29	15,709	22,966	Gratiot	35	33	19,457	26,533
Antrim	13	14	3,489	7,024	Hillsdale	31	37	12,730	23,791
Arenac	16	18	6,678	10,445	Houghton	35	32	13,958	18,989
Baraga	4	9	(D)	5,827	Huron	36	42	17,595	26,921
Barry	27	27	10,466	14,046	Ingham	121	122	154,613	253,984
Bay	78	86	61,937	106,485	Ionia	27	34	22,165	29,815
Benzie	11	16	4,031	9,323	Iosco	23	26	10,313	17,345
Berrien	124	121	75,368	118,434	Iron	14	14	4,258	7,002
Branch	24	31	22,608	32,538	Isabella	29	26	15,719	26,827
Calhoun	74	84	71,195	95,661	Jackson	76	71	62,885	95,589
Cass	29	28	14,290	22,780	Kalamazoo	99	106	93,460	155,088
Charlevoix	28	27	7,534	12,789	Kalkaska	3	9	(D)	13,088
Cheboygan	22	24	10,779	15,729	Kent	251	263	246,110	377,843
Chippewa	25	24	14,694	16,723	Keweenaw	--	--	--	--
Clare	16	16	6,346	13,433	Lake	3	3	(D)	(D)
Clinton	38	33	20,627	31,865	Lapeer	33	41	25,776	44,778
Crawford	3	5	(D)	(D)	Leelanau	7	11	897	1,149
Delta	29	29	14,592	29,102	Lenawee	73	80	53,027	79,560
Dickinson	23	21	15,679	(D)	Livingston	35	45	28,166	49,036
Eaton	43	45	51,177	72,209	Luce	6	7	3,659	7,456
Emmet	18	22	11,142	20,956	Mackinac	13	9	2,465	2,388
Genesee	236	233	246,924	482,044	Macomb	251	311	332,080	672,265

TABLE XXI-16. NUMBER OF ESTABLISHMENTS AND SALES, AUTOMOTIVE DEALERS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	20	24	6,081	14,535	Presque Isle	10	10	4,600	7,345
Marquette	35	46	23,878	42,093	Roscommon	24	19	4,663	7,411
Mason	16	14	11,576	16,229	Saginaw	123	134	104,720	164,893
Mecosta	16	27	9,423	19,055	St. Clair	99	98	46,137	76,642
Menominee	22	30	5,185	13,937	St. Joseph	57	51	26,376	43,768
Midland	39	45	30,323	47,026	Sanilac	32	42	13,423	23,999
Missaukee	8	7	2,201	(D)	Schoolcraft	6	7	3,363	4,893
Monroe	55	64	44,927	101,640	Shiawassee	50	54	27,852	53,708
Montcalm	42	48	23,308	35,122	Tuscola	49	53	22,428	38,353
Montmorency	5	3	484	(D)	Van Buren	46	33	31,200	52,545
Muskegon	102	114	62,619	95,943	Washtenaw	105	122	116,883	206,461
Newaygo	20	20	9,909	15,026	Wayne	745	762	1,187,516	1,854,825
Oakland	407	474	600,779	1,081,473	Wexford	20	32	11,592	253,378
Oceana	20	29	6,301	9,496					
Ogemaw	17	18	6,611	10,649	TOTAL	4,572	4,970	4,409,199	7,432,738
Ontonagon	13	10	5,679	9,187					
Osceola	11	7	3,347	4,341					
Oscoda	4	6	390	594					
Otsego	13	19	5,291	9,325					
Ottawa	94	108	55,686	92,805					

SOURCE: Bureau of the Census, U.S. Census of Business, 1977, Retail Trade, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-17. NUMBER OF ESTABLISHMENTS AND SALES, FOOD STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	20	19	2,632	4,766	Gladwin	27	23	7,581	12,989
Alger	23	23	5,308	8,518	Gogebic	32	31	12,857	13,375
Allegan	68	61	31,358	38,628	Grand Traverse	68	82	31,975	38,828
Alpena	52	51	20,254	30,890	Gratiot	53	49	20,733	26,468
Antrim	23	21	6,564	12,169	Hillsdale	41	41	15,224	25,007
Arenac	26	37	5,416	10,673	Houghton	70	55	18,852	29,567
Baraga	12	10	4,609	6,530	Huron	66	54	17,258	26,191
Barry	47	36	14,805	23,440	Ingham	205	213	119,643	156,875
Bay	158	139	61,564	89,280	Ionia	62	42	21,748	38,215
Benzie	22	22	5,124	9,993	Iosco	57	48	13,754	21,403
Berrien	216	166	90,145	138,334	Iron	31	19	8,228	13,244
Branch	43	39	15,863	22,072	Isabella	35	37	19,389	32,620
Calhoun	129	116	78,829	91,607	Jackson	148	123	73,906	84,808
Cass	50	44	19,029	25,675	Kalamazoo	136	145	111,180	135,148
Charlevoix	29	30	8,839	17,644	Kalkaska	15	14	2,545	8,530
Cheboygan	47	33	15,455	21,312	Kent	366	347	267,423	295,983
Chippewa	67	63	15,401	24,742	Keweenaw	10	11	654	(D)
Clare	36	47	12,065	22,127	Lake	22	24	2,358	(D)
Clinton	38	44	19,358	30,840	Lapeer	60	55	23,299	41,298
Crawford	10	14	4,918	8,738	Leelanau	25	25	7,200	6,676
Delta	66	71	23,740	32,096	Lenawee	112	77	55,623	68,688
Dickinson	36	43	13,411	16,885	Livingston	60	74	27,583	56,365
Eaton	70	78	26,117	61,377	Luce	11	14	3,645	7,483
Emmet	48	37	15,352	23,440	Mackinac	34	30	5,565	9,359
Genesee	406	396	244,171	347,764	Macomb	588	587	365,429	628,422

TABLE XXI-17. NUMBER OF ESTABLISHMENTS AND SALES, FOOD STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	39	30	12,590	15,605	Presque Isle	31	26	6,910	10,296
Marquette	86	78	27,262	48,358	Roscommon	44	39	10,743	19,095
Mason	35	38	15,530	20,799	Saginaw	220	244	117,235	180,617
Mecosta	33	37	15,177	20,240	St. Clair	153	142	59,875	89,849
Menominee	39	30	11,060	16,807	St. Joseph	53	61	28,351	40,673
Midland	57	59	35,173	53,259	Sanilac	65	55	18,770	25,559
Missaukee	12	8	3,290	5,137	Schoolcraft	22	18	4,952	8,786
Monroe	103	90	46,895	70,297	Shiawassee	67	71	29,156	47,687
Montcalm	46	54	28,210	31,146	Tuscola	81	65	22,896	29,323
Montmorency	22	17	2,833	4,335	Van Buren	69	68	30,650	45,787
Muskegon	137	143	90,945	100,838	Washtenaw	157	171	140,069	162,047
Newaygo	43	34	11,421	19,987	Wayne	2,985	2,405	1,277,146	1,656,346
Oakland	837	897	510,403	818,582	Wexford	46	35	16,089	25,927
Oceana	31	29	10,213	15,488					
Ogemaw	34	33	10,734	17,135	TOTAL	9,817	9,033	4,710,000	6,607,773
Ontonagon	18	16	5,501	6,189					
Osceola	30	35	7,152	11,671					
Oscoda	11	13	2,316	4,861					
Otsego	22	25	8,083	14,486					
Ottawa	113	107	78,341	67,823					

SOURCE: Bureau of the Census, U.S. Census of Business, 1977, Retail Trade, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-18. NUMBER OF ESTABLISHMENTS AND SALES, EATING AND DRINKING PLACES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	23	29	901	2,117	Gladwin	27	31	1,664	3,511
Alger	33	34	1,765	2,407	Gogebic	92	87	3,151	5,046
Allegan	108	102	8,857	13,383	Grand Traverse	77	106	(D)	22,338
Alpena	75	65	6,303	10,165	Gratiot	59	58	6,209	9,476
Antrim	37	44	2,608	4,144	Hillsdale	60	65	4,788	6,792
Arenac	36	33	2,146	3,696	Houghton	89	91	4,528	8,928
Baraga	25	18	1,527	2,208	Huron	90	92	5,264	8,490
Barry	46	41	3,318	5,115	Ingham	337	362	57,779	95,262
Bay	187	183	20,826	34,553	Ionia	83	73	5,871	9,048
Benzie	25	33	1,835	3,400	Iosco	74	64	5,224	7,417
Berrien	311	300	32,485	51,931	Iron	56	60	2,129	3,356
Branch	57	60	5,244	9,319	Isabella	60	74	7,168	15,488
Calhoun	255	245	28,950	47,840	Jackson	227	205	25,796	38,106
Cass	78	76	6,074	9,261	Kalamazoo	246	290	38,151	68,355
Charlevoix	46	49	3,319	5,309	Kalkaska	22	19	1,313	2,475
Cheboygan	66	83	5,011	9,238	Kent	555	608	81,143	146,917
Chippewa	88	78	6,525	8,890	Keweenaw	15	14	(D)	706
Clare	70	54	4,464	5,278	Lake	30	30	1,583	2,626
Clinton	57	47	3,891	7,742	Lapeer	50	57	5,911	11,482
Crawford	28	30	1,934	4,132	Leelanau	34	34	1,999	3,787
Delta	94	93	5,973	10,250	Lenawee	164	159	14,490	22,319
Dickinson	68	71	3,425	7,015	Livingston	83	92	8,959	20,596
Eaton	94	102	11,523	25,460	Luce	21	21	1,488	1,619
Emmet	64	65	6,594	11,469	Mackinac	74	62	4,000	5,739
Genesee	571	587	78,466	136,632	Macomb	755	854	107,050	199,627

TABLE XXI-18. NUMBER OF ESTABLISHMENTS AND SALES, EATING AND DRINKING PLACES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments 1972	Number of establishments 1977	Sales ($1,000) 1972	Sales ($1,000) 1977
Manistee	52	53	2,032	4,367
Marquette	111	139	9,475	20,927
Mason	52	54	4,921	8,415
Mecosta	53	58	4,437	9,375
Menominee	62	55	3,054	6,188
Midland	57	61	7,275	14,293
Missaukee	13	16	796	1,312
Monroe	158	158	17,290	24,279
Montcalm	77	77	6,048	9,422
Montmorency	25	27	1,383	2,656
Muskegon	212	228	23,654	39,803
Newaygo	49	52	3,241	5,515
Oakland	1,017	1,302	180,369	367,635
Oceana	42	42	2,031	3,228
Ogemaw	35	29	2,514	(D)
Ontonagon	35	34	1,532	2,352
Osceola	28	31	1,626	2,584
Oscoda	21	21	933	2,242
Otsego	34	38	4,280	8,195
Ottawa	133	155	14,641	34,043
Presque Isle	37	33	1,608	2,445
Roscommon	80	72	4,870	7,685
Saginaw	289	302	42,148	84,532
St. Clair	224	200	21,926	38,680
St. Joseph	79	76	7,465	(D)
Sanilac	63	62	3,951	5,825
Schoolcraft	40	35	2,047	3,002
Shiawassee	76	80	6,532	12,594
Tuscola	86	85	4,539	5,799
Van Buren	97	94	6,973	5,556
Washtenaw	293	308	46,879	26,151
Wayne	4,393	3,680	503,360	690,989
Wexford	43	49	3,922	7,150
TOTAL	13,988	13,836	1,609,913	2,695,997

SOURCE: Bureau of the Census, U.S. Census of Business, 1977, Retail Trade, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

(D): Data withheld to avoid disclosing figures for individual companies.

TABLE XXI-19. NUMBER OF ESTABLISHMENTS AND SALES, GASOLINE SERVICE STATIONS IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments		Sales ($1,000)		County	Number of establishments		Sales ($1,000)	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	13	13	2,648	1,970	Gladwin	26	21	2,345	4,824
Alger	17	16	2,620	3,946	Gogebic	30	29	4,039	5,703
Allegan	85	65	13,934	21,925	Grand Traverse	56	48	9,289	19,455
Alpena	41	27	5,129	8,416	Gratiot	56	47	5,982	13,919
Antrim	28	21	3,327	3,418	Hillsdale	48	28	5,341	7,681
Arenac	42	27	6,477	8,630	Houghton	48	45	5,672	10,967
Baraga	16	10	1,758	3,656	Huron	64	43	6,570	9,394
Barry	31	25	4,231	7,199	Ingham	268	171	43,343	69,724
Bay	138	97	19,299	36,405	Ionia	52	39	6,307	11,446
Benzie	20	17	2,190	3,107	Iosco	42	31	5,220	8,915
Berrien	228	169	36,117	59,800	Iron	30	30	3,561	12,306
Branch	44	35	7,369	7,532	Isabella	48	33	6,616	11,904
Calhoun	160	118	25,450	47,489	Jackson	164	109	24,314	42,856
Cass	43	29	4,225	6,711	Kalamazoo	215	155	34,005	56,242
Charlevoix	29	23	3,295	5,812	Kalkaska	13	11	1,987	2,667
Cheboygan	53	41	7,230	8,782	Kent	486	282	79,185	114,353
Chippewa	51	44	5,268	8,788	Keweenaw	7	6	475	796
Clare	50	32	7,186	5,988	Lake	17	9	1,388	1,562
Clinton	50	35	7,347	13,199	Lapeer	53	39	8,077	(D)
Crawford	22	19	3,603	6,353	Leelanau	18	21	2,030	7,161
Delta	41	46	9,121	14,681	Lenawee	104	69	13,994	24,552
Dickinson	45	30	4,507	8,262	Livingston	54	47	10,688	(D)
Eaton	91	80	12,977	29,853	Luce	5	7	526	454
Emmet	46	36	5,530	12,129	Mackinac	34	28	4,378	7,104
Genesee	399	274	80,927	134,458	Macomb	514	441	104,279	208,724

TABLE XXI-19. NUMBER OF ESTABLISHMENTS AND SALES, GASOLINE SERVICE STATIONS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments 1972	Number of establishments 1977	Sales ($1,000) 1972	Sales ($1,000) 1977	County	Number of establishments 1972	Number of establishments 1977	Sales ($1,000) 1972	Sales ($1,000) 1977
Manistee	44	27	4,631	6,629	Presque Isle	21	15	1,902	2,431
Marquette	66	57	10,403	22,890	Roscommon	42	28	4,684	7,615
Mason	43	27	4,198	5,779	Saginaw	208	144	35,091	60,757
Mecosta	43	31	4,746	9,842	St. Clair	118	94	16,041	33,593
Menominee	30	23	2,819	7,179	St. Joseph	68	47	8,505	16,115
Midland	70	45	13,362	17,547	Sanilac	55	39	5,105	7,490
Missaukee	15	12	1,459	5,756	Schoolcraft	20	16	1,769	1,937
Monroe	112	84	17,145	37,160	Shiawassee	74	45	7,859	15,056
Montcalm	62	46	6,706	13,005	Tuscola	54	50	7,656	14,552
Montmorency	16	12	1,217	2,207	Van Buren	80	55	10,38·	14,862
Muskegon	169	109	25,512	32,509	Washtenaw	204	163	40,989	80,669
Newaygo	44	21	5,483	5,645	Wayne	1,968	1,389	373,429	609,566
Oakland	769	635	158,252	317,923	Wexford	37	31	4,755	11,425
Oceana	21	16	3,062	2,938					
Ogemaw	22	19	3,420	7,502	TOTAL	8,919	6,572	1,481,565	2,590,860
Ontonagon	18	15	1,798	4,317					
Osceola	33	26	3,016	4,632					
Oscoda	12	10	947	1,470					
Otsego	30	26	5,116	11,913					
Ottawa	116	97	18,731	30,914					

SOURCE: Bureau of the Census, U.S. Census of Business, 1972, Retail Trade, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; and Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-20. NUMBER OF ESTABLISHMENTS AND SALES, DRUG AND PROPRIETARY STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	2	2	(D)	(D)	Gladwin	3	6	876	1,319
Alger	2	2	(D)	(D)	Gogebic	6	5	1,344	1,386
Allegan	16	15	(D)	6,232	Grand Traverse	15	15	2,764	(D)
Alpena	9	8	2,395	3,689	Gratiot	8	8	2,109	3,564
Antrim	5	5	1,354	1,199	Hillsdale	6	7	2,454	3,619
Arenac	3	4	707	967	Houghton	7	8	1,846	2,581
Baraga	2	1	(D)	(D)	Huron	11	11	2,718	(D)
Barry	8	8	1,452	2,029	Ingham	56	55	(D)	22,138
Bay	27	28	(D)	(D)	Ionia	10	9	2,305	2,935
Benzie	5	8	943	1,747	Isoco	6	7	2,280	3,515
Berrien	40	37	11,288	17,036	Iron	5	4	769	893
Branch	8	8	2,415	3,333	Isabella	7	11	3,044	6,319
Calhoun	38	32	(D)	(D)	Jackson	35	31	9,311	(D)
Cass	8	7	1,849	2,426	Kalamazoo	37	32	12,512	15,303
Charlevoix	7	7	1,072	1,676	Kalkaska	2	1	(D)	(D)
Cheboygan	5	5	996	1,402	Kent	85	78	(D)	(D)
Chippewa	7	8	1,389	2,933	Keweenaw	--	--	--	--
Clare	3	5	1,158	1,869	Lake	1	2	(D)	(D)
Clinton	8	9	(D)	2,934	Lapeer	12	13	4,022	8,275
Crawford	2	3	(D)	787	Leelanau	2	3	(D)	340
Delta	9	7	1,478	1,492	Lenawee	22	19	5,452	(D)
Dickinson	7	6	1,944	2,156	Livingston	13	12	(D)	9,972
Eaton	15	13	3,837	5,375	Luce	2	2	(D)	(D)
Emmet	8	9	1,685	2,917	Mackinac	4	3	552	(D)
Genesee	119	108	(D)	(D)	Macomb	118	130	53,680	(D)

TABLE XXI-20. NUMBER OF ESTABLISHMENTS AND SALES, DRUG AND PROPRIETARY STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	9	6	1,551	2,314	Presque Isle	5	5	728	1,042
Marquette	10	9	2,122	3,943	Roscommon	4	6	1,536	2,237
Mason	7	8	1,930	3,245	Saginaw	46	52	15,087	(D)
Mecosta	7	8	1,705	2,542	St. Clair	27	28	(D)	14,652
Menominee	2	2	(D)	(D)	St. Joseph	12	15	2,764	4,459
Midland	11	13	5,783	9,527	Sanilac	10	10	1,741	3,144
Missaukee	2	2	(D)	(D)	Schoolcraft	3	3	710	927
Monroe	18	22	4,076	(D)	Shiawassee	16	16	(D)	(D)
Montcalm	10	10	2,552	3,195	Tuscola	14	12	2,589	(D)
Montmorency	3	2	608	(D)	Van Buren	12	12	(D)	(D)
Muskegon	39	34	11,970	15,034	Washtenaw	46	42	(D)	(D)
Newaygo	8	6	1,285	1,468	Wayne	568	479	258,290	317,286
Oakland	198	225	116,820	(D)	Wexford	4	6	1,984	3,697
Oceana	5	5	769	1,195					
Ogemaw	3	5	1,257	1,984	Michigan	1,970	1,899	751,939	1,050,132
Ontonagon	3	3	(D)	675					
Osceola	3	5	685	1,210					
Oscoda	2	2	(D)	(D)					
Otsego	2	4	(D)	1,534					
Ottawa	25	25	(D)	(D)					

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-21. NUMBER OF ESTABLISHMENTS AND SALES, APPAREL AND ACCESSORY STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	--	1	--	(D)	Gladwin	5	8	466	861
Alger	7	4	523	568	Gogebic	16	16	2,116	2,387
Allegan	22	34	(D)	4,879	Grand Traverse	32	41	5,530	(D)
Alpena	23	24	3,515	8,479	Gratiot	30	33	3,490	3,936
Antrim	3	5	57	720	Hillsdale	18	20	2,115	4,110
Arenac	5	5	352	520	Houghton	18	14	3,860	4,694
Baraga	5	3	389	(D)	Huron	26	24	3,283	4,336
Barry	11	13	1,058	3,184	Ingham	132	131	30,923	47,861
Bay	55	60	12,753	18,263	Ionia	21	27	2,098	3,741
Benzie	10	9	690	808	Iosco	18	19	1,950	1,996
Berrien	78	75	14,500	20,416	Iron	9	11	852	1,220
Branch	22	24	3,699	4,644	Isabella	17	34	3,472	11,282
Calhoun	67	65	13,197	18,380	Jackson	63	58	15,878	23,149
Cass	16	16	1,533	3,034	Kalamazoo	119	128	28,793	41,450
Charlevoix	14	13	1,067	1,718	Kalkaska	4	5	176	418
Cheboygan	11	21	862	3,394	Kent	229	220	67,003	99,359
Chippewa	14	23	1,696	5,367	Keweenaw	--	--	--	--
Clare	12	11	1,051	2,759	Lake	--	1	--	(D)
Clinton	15	22	2,117	4,946	Lapeer	22	24	4,120	7,132
Crawford	3	5	(D)	(D)	Leelanau	4	4	462	656
Delta	21	24	3,426	5,683	Lenawee	50	48	8,757	12,861
Dickinson	15	19	4,025	5,270	Livingston	28	30	3,322	5,120
Eaton	44	57	8,148	17,036	Luce	4	4	574	719
Emmet	34	42	3,893	10,340	Mackinac	5	10	531	(D)
Genesee	227	224	58,568	83,779	Macomb	190	278	47,618	96,421

TABLE XXI-21. NUMBER OF ESTABLISHMENTS AND SALES, APPAREL AND ACCESSORY STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number		Sales	
	1972	1977	1972	1977
Manistee	13	11	1,445	2,803
Marquette	35	38	5,527	9,296
Mason	12	13	1,387	1,898
Mecosta	16	15	2,123	4,562
Menominee	8	8	561	721
Midland	30	41	6,313	9,938
Missaukee	2	3	(D)	102
Monroe	24	24	(D)	6,879
Montcalm	20	17	2,563	3,443
Montmorency	4	5	636	(D)
Muskegon	58	66	9,763	(D)
Newaygo	16	12	1,886	2,005
Oakland	611	811	211,286	345,018
Oceana	10	5	1,340	(D)
Ogemaw	7	8	1,164	1,523
Ontonagon	6	7	459	788
Osceola	10	10	940	1,077
Oscoda	2	2	(D)	(D)
Otsego	8	11	1,000	1,659
Ottawa	58	60	8,648	14,400
Presque Isle	7	8	659	890
Roscommon	9	14	559	1,724
Saginaw	111	133	30,688	59,321
St. Clair	50	50	9,391	17,785
St. Joseph	30	31	3,356	5,531
Sanilac	19	22	2,556	3,522
Schoolcraft	7	6	565	1,454
Shiawassee	29	27	3,211	6,382
Tuscola	20	27	2,139	4,470
Van Buren	20	20	2,793	2,373
Washtenaw	110	141	38,339	61,351
Wayne	1,038	10	348,059	2,115
Wexford	13	17	2,703	5,644
Michigan	4,207	4,649	1,008,668	1,641,875

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-22. NUMBER OF ESTABLISHMENTS AND SALES, GENERAL MERCHANDISE STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	3	7	410	936	Gladwin	9	6	1,350	(D)
Alger	1	5	(D)	335	Gogebic	10	11	5,350	7,432
Allegan	15	18	2,165	2,671	Grand Traverse	17	14	(D)	(D)
Alpena	9	11	10,544	10,401	Gratiot	12	10	8,351	9,474
Antrim	6	8	393	518	Hillsdale	10	8	6,210	8,458
Arenac	4	5	(D)	730	Houghton	11	9	4,020	4,199
Baraga	4	7	1,301	2,536	Huron	14	10	1,751	2,263
Barry	8	5	2,110	1,512	Ingham	45	31	119,224	173,508
Bay	22	14	43,477	56,476	Ionia	12	9	3,670	(D)
Benzie	4	--	397	--	Iosco	14	10	1,602	2,338
Berrien	45	28	49,637	63,647	Iron	7	7	1,663	2,196
Branch	9	14	4,822	10,050	Isabella	8	6	9,026	13,874
Calhoun	31	21	43,434	76,122	Jackson	29	24	51,903	(D)
Cass	5	4	1,057	1,585	Kalamazoo	31	36	(D)	168,949
Charlevoix	10	12	1,314	1,493	Kalkaska	4	3	(D)	241
Cheboygan	11	10	2,404	1,863	Kent	78	53	(D)	(D)
Chippewa	17	8	10,775	11,443	Keweenaw	--	--	--	--
Clare	13	11	1,330	1,561	Lake	6	3	395	615
Clinton	9	5	(D)	(D)	Lapeer	11	12	7,317	(D)
Crawford	4	4	1,034	3,041	Leelanau	3	4	(D)	(D)
Delta	13	13	9,442	14,407	Lenawee	28	23	24,075	28,520
Dickinson	9	12	7,392	16,306	Livingston	9	12	(D)	(D)
Eaton	16	19	(D)	83,893	Luce	1	2	(D)	(D)
Emmet	15	11	11,517	(D)	Mackinac	5	2	1,487	(D)
Genesee	70	57	(D)	291,800	Macomb	71	57	265,877	361,587

TABLE XXI-22. NUMBER OF ESTABLISHMENTS AND SALES, GENERAL MERCHANDISE STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	15	10	4,866	6,116	Presque Isle	4	7	789	1,697
Marquette	15	17	9,306	(D)	Roscommon	9	11	1,200	1,158
Mason	11	9	7,528	9,538	Saginaw	36	28	78,785	134,599
Mecosta	11	13	4,501	8,721	St. Clair	23	23	(D)	44,706
Menominee	6	9	(D)	11,198	St. Joseph	14	16	(D)	(D)
Midland	10	8	14,329	(D)	Sanilac	11	13	1,591	1,770
Missaukee	4	4	(D)	471	Schoolcraft	4	2	775	(D)
Monroe	15	18	22,986	31,010	Shiawassee	12	16	(D)	18,504
Montcalm	13	16	1,404	22,696	Tuscola	21	13	4,762	3,203
Montmorency	3	2	750	(D)	Van Buren	13	13	(D)	4,001
Muskegon	32	19	(D)	96,124	Washtenaw	35	27	61,783	(D)
Newaygo	13	10	1,381	(D)	Wayne	309	224	949,449	1,096,790
Oakland	114	115	452,050	640,106	Wexford	9	7	7,828	8,948
Oceana	9	5	(D)	1,260					
Ogemaw	6	8	1,285	1,558	Michigan	1,617	1,372	2,929,434	4,381,137
Ontonagon	5	4	1,214	1,102					
Osceola	6	4	607	833					
Oscoda	1	2	(D)	(D)					
Otsego	6	4	923	837					
Ottawa	24	24	(D)	(D)					

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-23. NUMBER OF ESTABLISHMENTS AND SALES, FURNITURE, HOME FURNISHINGS, AND EQUIPMENT STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	5	4	136	(D)	Gladwin	6	8	1,387	1,667
Alger	3	5	168	468	Gogebic	14	14	2,296	2,350
Allegan	26	40	3,142	4,104	Grand Traverse	41	61	8,291	12,067
Alpena	24	32	4,852	6,542	Gratiot	21	24	3,325	3,865
Antrim	11	4	275	(D)	Hillsdale	31	27	3,291	3,344
Arenac	7	5	806	426	Houghton	20	20	5,520	3,124
Baraga	5	5	252	287	Huron	29	32	3,295	4,339
Barry	15	20	1,450	1,809	Ingham	150	136	37,893	51,880
Bay	76	84	13,970	18,272	Ionia	28	24	2,569	2,827
Benzie	7	11	485	731	Iosco	29	29	3,648	3,651
Berrien	113	122	14,510	49,556	Iron	9	13	1,038	1,128
Branch	24	25	2,174	3,167	Isabella	19	27	3,775	6,432
Calhoun	78	96	13,914	21,129	Jackson	65	66	11,323	17,552
Cass	20	18	1,492	1,584	Kalamazoo	115	136	29,558	42,474
Charlevoix	12	20	1,317	3,095	Kalkaska	4	3	(D)	274
Cheboygan	10	9	1,327	1,412	Kent	288	308	65,651	98,487
Chippewa	20	17	2,802	2,364	Keweenaw	1	--	(D)	--
Clare	17	18	1,854	3,023	Lake	1	1	(D)	(D)
Clinton	21	21	3,710	3,743	Lapeer	27	29	3,598	5,504
Crawford	3	5	305	527	Leelanau	5	11	(D)	557
Delta	31	29	4,537	6,330	Lenawee	52	53	7,675	11,305
Dickinson	20	21	3,377	4,818	Livingston	17	49	3,531	7,967
Eaton	41	50	5,399	10,795	Luce	1	5	(D)	418
Emmet	16	26	3,295	6,128	Mackinac	4	6	463	682
Genesee	238	271	53,233	91,225	Macomb	279	364	72,817	135,804

TABLE XXI-23. NUMBER OF ESTABLISHMENTS AND SALES, FURNITURE, HOME FURNISHINGS, AND EQUIPMENT STORES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	14	14	1,506	1,615	Presque Isle	4	8	770	1,660
Marquette	34	44	6,040	9,939	Roscommon	9	17	1,302	1,465
Mason	20	20	1,415	2,267	Saginaw	118	148	31,908	45,573
Mecosta	16	22	2,009	3,872	St. Clair	65	76	12,274	17,957
Menominee	11	16	2,197	1,905	St. Joseph	34	35	5,491	4,888
Midland	44	40	7,279	7,777	Sanilac	24	25	3,165	3,852
Missaukee	3	2	(D)	(D)	Schoolcraft	7	7	445	679
Monroe	55	35	9,960	11,490	Shiawassee	37	38	6,649	8,380
Montcalm	26	32	3,960	4,729	Tuscola	28	29	2,872	3,006
Montmorency	6	17	408	344	Van Buren	33	32	3,587	4,635
Muskegon	95	94	18,040	21,781	Washtenaw	132	144	36,232	55,314
Newaygo	15	24	1,804	2,248	Wayne	947	15	292,055	3,123
Oakland	525	649	129,915	235,670	Wexford	16	22	2,128	4,822
Oceana	6	12	646	978					
Ogemaw	9	11	1,025	1,777	Michigan	4,519	4	1,008,668	(D)
Ontonagon	6	6	404	(D)					
Osceola	6	10	332	472					
Oscoda	3	6	64	361					
Otsego	8	9	1,233	1,735					
Ottawa	84	103	13,575	18,812					

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-24. NUMBER OF ESTABLISHMENTS AND SALES, BUILDING MATERIALS, HARDWARE, AND GARDEN SUPPLY STORES AND MOBILE HOME DEALERS IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	9	8	1,368	1,786	Gladwin	15	11	2,191	(D)
Alger	5	9	864	1,330	Gogebic	13	17	2,894	3,655
Allegan	42	40	6,360	10,073	Grand Traverse	38	40	20,788	27,741
Alpena	23	26	7,590	9,052	Gratiot	27	29	7,473	8,296
Antrim	17	18	4,150	(D)	Hillsdale	28	33	5,426	8,074
Arenac	12	8	2,200	3,191	Houghton	18	20	5,246	8,868
Baraga	4	6	844	(D)	Huron	36	42	5,732	(D)
Barry	19	23	4,053	5,628	Ingham	79	80	29,499	42,165
Bay	59	49	16,167	23,716	Ionia	29	25	7,748	11,472
Benzie	12	12	2,533	4,616	Iosco	22	21	7,537	9,588
Berrien	79	89	26,698	36,928	Iron	8	11	3,010	1,956
Branch	38	30	7,202	9,733	Isabella	17	26	6,440	9,719
Calhoun	77	67	13,695	19,118	Jackson	66	68	19,895	25,517
Cass	25	23	4,638	5,100	Kalamazoo	80	77	23,283	46,426
Charlevoix	14	14	2,887	4,580	Kalkaska	8	6	1,738	(D)
Cheboygan	15	18	4,427	7,256	Kent	163	170	60,551	109,501
Chippewa	19	24	4,090	7,536	Keweenaw	1	1	(D)	(D)
Clare	20	22	4,562	8,177	Lake	5	7	(D)	(D)
Clinton	26	25	10,125	12,855	Lapeer	23	28	7,762	9,132
Crawford	8	9	1,227	1,722	Leelanau	6	8	1,399	(D)
Delta	23	34	5,737	11,252	Lenawee	53	51	12,291	15,914
Dickinson	22	28	3,605	(D)	Livingston	35	45	11,018	16,078
Eaton	34	38	5,693	10,347	Luce	5	5	1,054	1,442
Emmet	21	27	8,843	(D)	Mackinac	10	12	1,544	3,227
Genesee	184	170	63,017	80,727	Macomb	179	215	104,834	149,162

TABLE XXI-24. NUMBER OF ESTABLISHMENTS AND SALES, BUILDING MATERIALS, HARDWARE, AND GARDEN SUPPLY STORES AND MOBILE HOME DEALERS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number		Sales		County	Number		Sales	
	1972	1977	1972	1977		1972	1977	1972	1977
Manistee	16	14	3,204	4,192	Presque Isle	14	12	4,679	5,968
Marquette	27	39	7,185	15,087	Roscommon	24	19	5,099	7,942
Mason	17	14	5,610	7,729	Saginaw	79	81	30,486	42,316
Mecosta	14	14	2,803	5,150	St. Clair	56	57	16,547	23,163
Menominee	19	14	2,921	(D)	St. Joseph	28	31	5,970	9,262
Midland	27	35	8,526	(D)	Sanilac	38	49	8,494	13,862
Missaukee	8	6	1,294	915	Schoolcraft	7	10	1,730	(D)
Monroe	46	43	15,877	17,647	Shiawassee	33	42	12,336	20,359
Montcalm	31	28	10,946	17,218	Tuscola	43	40	10,700	(D)
Montmorency	6	8	2,261	3,661	Van Buren	40	44	8,859	11,971
Muskegon	49	54	26,549	30,263	Washtenaw	86	72	38,576	53,124
Newaygo	24	21	4,607	(D)	Wayne	604	565	177,502	257,834
Oakland	324	362	127,407	206,671	Wexford	20	19	5,903	8,104
Oceana	17	19	2,336	4,427					
Ogemaw	13	21	4,004	(D)	Michigan	3,577	3,712	1,144,174	1,683,382
Ontonagon	12	10	1,836	(D)					
Osceola	19	24	4,117	4,828					
Oscoda	6	10	1,366	2,618					
Otsego	13	15	6,852	8,301					
Ottawa	41	62	14,910	25,955					

SOURCE: Bureau of the Census, 1972 Census of Retail Trade, Area Statistics, Michigan (Washington, D.C.: 1974), RC72-A-23, Table 6; and Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXI-25. LICENSES ISSUED IN MICHIGAN FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY, FOR THE LICENSE PERIOD 1 MAY 1979 TO 30 APRIL 1980

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Alcona	55	7	5	0	0	0	1	0	0
Alger	50	14	12	0	0	0	0	0	0
Allegan	224	23	14	8	0	2	19	0	2
Alpena	96	9	7	0	0	0	17	0	0
Antrim	63	10	2	0	0	0	0	0	0
Arenac	58	1	7	2	0	0	1	2	0
Baraga	43	1	2	0	0	0	0	0	0
Barry	92	13	4	2	1	1	10	1	0
Bay	316	32	22	1	0	1	53	2	4
Benzie	54	3	3	0	1	0	1	0	0
Berrien	524	40	54	4	1	4	90	41	7
Branch	112	11	7	1	0	0	22	0	1
Calhoun	387	46	19	2	2	3	80	0	39
Cass	104	20	9	0	6	2	9	20	1
Charlevoix	90	14	8	1	0	1	0	0	0
Cheboygan	104	16	7	0	0	0	0	0	0
Chippewa	174	10	9	0	0	2	0	0	0
Clare	84	14	4	0	1	4	6	0	0
Clinton	120	11	8	1	0	1	5	0	4
Crawford	45	7	4	0	0	0	0	0	0
Delta	145	17	7	0	0	2	4	11	8
Dickinson	107	9	5	1	0	1	9	0	2
Eaton	211	18	21	1	0	2	32	1	5
Emmet	132	8	6	1	0	2	0	0	0
Genesee	1,046	143	78	6	4	6	236	38	98

TABLE XXI-25. LICENSES ISSUED IN MICHIGAN, FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY, FOR THE LICENSE PERIOD 1 MAY 1979 TO 30 APRIL 1980 (cont.)

	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
County	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Gladwin	43	10	3	1	0	0	3	0	0
Gogebic	122	10	7	2	0	0	0	0	0
Grand Traverse	151	26	17	4	4	0	24	0	4
Gratiot	105	10	9	1	1	0	5	0	0
Hillsdale	106	18	5	3	0	0	16	7	11
Houghton	161	13	6	0	0	0	1	0	0
Huron	148	11	5	0	0	0	24	0	6
Ingham	669	64	38	10	0	4	199	12	19
Ionia	126	20	14	2	1	1	15	0	1
Iosco	112	9	8	3	0	0	2	0	0
Iron	71	13	5	0	0	1	1	1	0
Isabella	113	9	16	0	0	1	4	2	1
Jackson	410	53	21	10	2	7	101	5	13
Kalamazoo	587	52	89	2	0	1	147	2	33
Kalkaska	39	0	5	1	0	1	1	0	0
Kent	967	117	82	12	13	10	221	51	50
Keweenaw	26	1	0	0	0	1	0	0	0
Lake	40	5	3	0	0	0	0	0	0
Lapeer	117	13	10	3	0	1	6	0	2
Leelanau	63	5	7	0	0	0	0	0	0
Lenawee	269	27	21	2	1	1	29	9	5
Livingston	156	21	21	2	0	0	10	4	1
Luce	36	2	1	0	0	0	0	0	0
Mackinac	123	9	3	0	0	0	0	0	0
Macomb	1,666	163	137	26	4	21	553	35	77

TABLE XXI-25. LICENSES ISSUED IN MICHIGAN, FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY, FOR THE LICENSE PERIOD 1 MAY 1979 TO 30 APRIL 1980 (cont.)

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Manistee	104	11	3	0	0	1	6	0	0
Marquette	222	23	18	1	0	0	18	0	4
Mason	112	12	8	0	0	1	6	0	1
Mecosta	96	8	3	1	0	1	24	0	1
Menominee	108	14	1	0	0	0	9	0	4
Midland	140	20	14	4	0	1	28	3	1
Missaukee	30	1	2	0	0	0	0	0	0
Monroe	317	31	40	5	1	1	41	4	13
Montcalm	146	10	9	0	0	2	11	0	2
Montmorency	41	8	1	0	0	0	0	0	0
Muskegon	408	42	35	4	0	1	138	0	35
Newaygo	94	12	8	3	1	0	5	0	0
Oakland	2,171	218	311	31	12	31	349	218	128
Oceana	90	18	11	1	1	0	0	0	4
Ogemaw	48	12	1	0	0	0	0	0	0
Ontonagon	61	7	1	0	0	0	0	0	0
Osceola	47	5	6	2	1	0	5	0	0
Oscoda	26	8	3	0	0	0	0	0	0
Otsego	66	12	7	1	0	0	6	0	0
Ottawa	330	32	26	2	3	2	75	6	24
Presque Isle	55	3	3	0	0	0	0	0	0
Roscommon	116	16	10	0	0	0	0	0	0
Saginaw	543	66	40	11	3	3	88	9	14
St. Clair	331	45	36	2	2	0	95	1	8
St. Joseph	158	18	18	3	0	2	29	0	4

TABLE XXI-25. LICENSES ISSUED IN MICHIGAN, FOR FOOD SERVICE ESTABLISHMENTS AND FOR VENDING MACHINE LOCATIONS WHERE PERISHABLE FOODS AND BEVERAGES ARE DISPENSED, BY COUNTY, FOR THE LICENSE PERIOD 1 MAY 1979 TO 30 APRIL 1980 (cont.)

County	Food service establishments[a]			Mobil establishments[b]			Vending machine locations[c]		
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment
Sanilac	122	11	8	2	0	0	22	0	6
Schoolcraft	58	5	6	0	0	0	0	0	0
Shiawassee	167	9	13	1	0	0	19	0	4
Tuscola	130	9	15	0	0	1	19	0	5
Van Buren	178	17	12	2	0	0	30	6	8
Washtenaw	532	90	74	3	0	6	157	4	22
Wayne	5,587	707	441	119	44	142	1,265	158	371
Wexford	87	10	2	1	0	1	14	1	2
Indiana	0	0	0	0	0	2	0	0	0
TOTAL	23,583	2,678	2,043	314	110	284	4,416	654	1,055

SOURCE: Michigan Department of Health, Division of Food Service Sanitation, special release.

a. Includes cafeterias, restaurants, delicatessens, soda fountains, drive-ins, bars, taverns, factory commissaries, college dormitories, and other fixed establishments where food is prepared for consumption on the premises. Does not apply to state and county fairs and other temporary food service establishments: carnivals, circuses, public exhibitions, or similar transitory gatherings.

b. Applies to each mobile unit, according to its county or state home base.

c. Locations where food is offered through self-service, coin-operated devices, excepting devices which dispense only bottled or canned soft drinks, other packaged nonperishable foods or beverages, or bulk ball gum, nuts, and panned candies.

TABLE XXI-26. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1979-1980

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Alcona	1	2	11	--	--	40	13	79
Alger	4	2	19	--	--	51	10	99
Allegan	12	4	37	6	1	106	24	203
Alpena	4	1	28	--	--	90	19	156
Antrim	3	2	18	--	--	43	11	90
Arenac	1	1	18	1	--	51	10	96
Baraga	4	2	13	--	--	32	7	65
Barry	6	2	16	1	--	61	13	103
Bay	4	3	48	--	--	137	25	248
Bay City	9	3	64	--	--	107	19	202
TOTAL BAY	13	6	112	--	--	244	44	450
Benzie	1	2	10	--	--	31	9	60
Berrien	38	7	120	2	--	276	63	565
Branch	10	--	30	2	--	77	15	136
Calhoun	26	6	103	2	--	206	53	406
Cass	6	--	35	1	--	83	11	149
Charlevoix	2	1	17	1	--	47	14	99
Cheboygan	4	2	29	--	--	79	16	153
Chippewa	7	3	42	--	--	102	27	196
Clare	6	2	22	--	--	81	17	136
Clinton	5	--	34	1	--	70	17	131
Crawford	3	1	11	--	--	28	9	59
Delta	8	6	51	2	--	121	25	225
Dickinson	8	1	49	--	--	75	14	156
Eaton	7	1	42	--	--	105	25	182
Emmet	6	3	20	--	--	58	18	128

TABLE XXI-26. NUMBER OF LIQUOR RETAIL LECENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1979-1980 (cont.)

	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises				
County	Club	B-hotel	Class C	Tavern	A-hotel	Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
Genesee	22	7	133	3	--	373	93	637
Flint	15	--	143	5	--	301	58	522
TOTAL GENESEE	37	7	276	8	--	674	151	1,159
Gladwin	2	--	15	--	--	52	14	91
Gogebic	5	4	48	--	--	71	8	153
Grand Traverse	4	3	37	--	--	100	26	188
Gratiot	6	--	25	2	--	65	16	117
Hillsdale	6	--	19	7	--	59	13	106
Houghton	6	3	69	1	--	109	19	214
Huron	5	13	33	2	--	108	27	211
Ingham	9	1	61	10	--	131	35	249
Lansing City	8	7	74	--	--	157	42	290
TOTAL INGHAM	17	8	135	10	--	288	77	539
Ionia	9	--	37	3	--	84	20	158
Iosco	7	6	18	--	--	84	18	158
Iron	4	2	36	1	--	51	10	111
Isabella	6	1	29	--	--	69	15	133
Jackson	8	2	49	1	--	147	40	263
Jackson	11	1	51	1	--	76	17	160
TOTAL JACKSON	19	3	100	2	--	223	57	423
Kalamazoo	21	7	107	3	--	211	65	427
Kalkaska	1	1	8	--	1	31	8	55
Kent	15	9	77	29	1	227	59	435
Grand Rapids	33	3	124	15	--	257	62	495
TOTAL KENT	48	12	201	44	1	484	121	930

TABLE XXI-26. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1979-1980 (cont.)

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Keweenaw	--	3	4	--	--	15	4	34
Lake	--	--	13	--	--	34	11	64
Lapeer	4	2	27	3	--	90	26	153
Leelanau	1	1	15	--	--	42	12	88
Lenawee	20	4	51	8	--	135	32	267
Livingston	12	3	33	1	--	103	30	200
Luce	3	1	13	--	--	29	7	55
Mackinac	5	2	17	--	--	52	14	125
Macomb	7	15	299	3	--	706	192	1,327
Manistee	7	1	34	--	--	73	14	136
Marquette	18	5	62	1	--	134	34	294
Mason	7	2	22	--	--	68	16	125
Mecosta	4	1	20	1	--	63	18	116
Menominee	5	3	46	--	--	73	10	141
Midland	10	2	33	--	--	81	25	152
Missaukee	1	--	4	1	--	17	5	32
Monroe	18	3	98	3	--	207	47	390
Montcalm	6	3	38	2	--	93	27	173
Montmorency	--	2	7	--	--	36	11	73
Muskegon	30	6	108	5	--	240	57	456
Newaygo	5	1	19	2	--	58	19	114
Oakland	76	20	390	9	--	840	253	1,625
Pontiac	5	1	41	--	--	98	27	172
TOTAL OAKLAND	81	21	431	9	--	938	280	1,797
Oceana	3	--	14	4	--	45	12	80

TABLE XXI-26. NUMBER OF LIQUOR RETAIL LICENSES ISSUED, BY COUNTY, FOR THE LICENSE YEAR: 1979-1980 (cont.)

County	Beer, wine, and spirits consumed on premises			Beer and wine only consumed on premises		Beer and wine consumed off premises	Spirits consumed off premises[a]	Total
	Club	B-hotel	Class C	Tavern	A-hotel			
Ogemaw	3	--	18	--	--	59	12	102
Ontonagon	5	2	22	--	--	37	7	85
Osceola	2	2	11	1	--	42	7	65
Oscoda	1	3	2	--	--	22	7	50
Otsego	2	1	11	--	--	34	11	77
Ottawa	13	2	40	10	--	109	37	215
Presque Isle	2	3	21	--	--	63	11	108
Roscommon	2	1	12	1	-	63	16	138
Saginaw	10	6	92	1	--	201	45	369
Saginaw	14	4	69	--	--	149	30	266
TOTAL SAGINAW	24	10	161	1	--	350	75	635
St. Clair	16	10	100	--	--	268	54	499
St. Joseph	14	2	40	2	--	88	18	166
Sanilac	1	6	27	2	--	87	18	158
Schoolcraft	4	2	14	--	--	34	5	74
Shiawassee	13	--	37	3	--	105	25	186
Tuscola	5	3	41	1	--	108	25	185
Van Buren	10	1	41	2	--	117	26	218
Washtenaw	24	9	120	7	--	267	74	506
Wayne	107	22	543	17	--	1,075	289	2,065
Dearborn	14	3	86	--	--	150	34	294
Hamtramck	20	1	77	--	--	76	13	187
Highland Park	--	1	14	--	--	44	15	74
Detroit	81	11	1,370	27	--	2,012	443	3,945
TOTAL WAYNE	222	38	2,090	44	--	3,357	794	6,565
Wexford	5	2	19	--	--	52	14	99
TOTAL	1,051	304	6,315	224	2	13,514	3,288	25,818

SOURCE: Michigan Liquor Control Commission, special release.
a. Spirits or wine over 16 percent alcohol.

TABLE XXI-27. ESTIMATED ANNUAL SALES OF RETAIL STORES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE STATE OF MICHIGAN, AND THE UNITED STATES: 1965-1979

(millions of dollars)

Year	Detroit Standard Metropolitan Statistical Area		Michigan		United States	
	Nondurable goods	Total	Nondurable goods	Total	Nondurable goods	Total
1965	(a)	6,464	8,165	12,909	190,134	283,852
1966	(a)	6,717	8,765	13,732	205,860	303,672
1967	4,577	6,896	8,957	14,022	213,636	313,809
1968	5,476	8,178	10,372	15,975	229,079	339,324
1969	5,511	8,158	10,747	16,161	284,722	351,633
1970	5,679	8,095	11,154	16,317	261,239	375,633
1971	5,874	8,829	11,962	18,342	277,036	408,850
1972	6,164	9,159	12,934	19,792	298,720	448,379
1973	6,821	10,159	14,554	22,181	333,042	503,317
1974	7,324	10,461	15,604	22,775	370,469	537,782
1975	7,607	10,981	16,357	23,964	403,698	584,423
1976	8,234	12,444	18,067	27,034[b]	437,611	651,694[b]
1977	n.a.	n.a.	n.a.	29,520[b]	n.a.	708,344[b]
1978	11,713	19,614	22,381	36,070	520,902	798,818
1979	12,835	21,440	24,778	39,312	580,189	884,133

SOURCE: U.S. Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1963 through 1978 (Washington, D.C.: annually), BR-79-12, Tables 1, 6, and 7 (1979).

NOTE: Figures are not strictly comparable over time because of changes in the sample of stores used for the estimate and revisions in the estimating procedure itself.

a. Not available prior to 1966

b. Based on revised sample not strictly comparable with data for previous years. The revised (comparable) figure for the U.S. for 1976, for example, is $642,507,000,000, and for 1975, $580,445,000,000. Revised Michigan data are not available.

n.a.: not available.

TABLE XXI-28. DEPARTMENT STORE SALES AND NUMBER OF DEPARTMENT STORES IN SELECTED MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS AND CITIES: 1978 AND 1979

	1978		1979	
	Sales ($000)	Number of stores	Sales ($000)	Number of stores
SMSAs				
Ann Arbor	147,084	8	158,711	9
Detroit	2,065,279	120	2,125,193	113
Flint	286,402	24	298,313	26
Grand Rapids	369,996	26	406,473	27
Jackson	106,376	7	112,610	7
Kalamazoo-Portage	158,133	14	169,574	14
Lansing-East Lansing	275,184	16	302,488	17
Muskegon-Muskegon Heights-Norton Shores	98,132	7	107,459	7
Cities				
Battle Creek	72,277	4	79,713	4
Port Huron	n.a.	n.a.	n.a.	n.a.

SOURCE: Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1979 (Washington, D.C.: annually), BR-79-12, Tables 10 and 10A.

n.a.: not available.

TABLE XXI-29. MICHIGAN EMPLOYMENT OF SELECTED MAJOR DEPARTMENT STORE CHAINS: 1977-1979

Chain	1977	1978	1979
K-Mart	n.a.	n.a.	20,000[a]
Dayton-Hudson	16,376[b]	16,297[b]	n.a.
Sears Roebuck	24,674[c]	15,500[c]	n.a.
J.C. Penney	14,084[d]	16,577[d]	15,532[d]
Meijer	11,600[a]	12,000[a]	14,300[a]
Montgomery Ward	7,152[b]	n.a.	n.a.
F. W. Woolworth	n.a.	1,600[a]	n.a.

SOURCE: The various companies.

a. Approximate annual averages.
b. Annual averages.
c. September-August fiscal year averages.
d. Year-end figures.
n.a.: not available.

Information on the number of banking offices in the state and operating statistics of insured banks are available from the Federal Deposit Insurance Corporation. Data on bank activity throughout the state are contained in the publications and releases of the Board of Governors of the Federal Reserve System. The Board of Governors releases Bank Debits and Deposit Turnover monthly, listing debits for the Federal Reserve districts and the principal cities. Detailed information on bank debits in Michigan also is available in the releases of the Federal Reserve banks of Chicago and Minneapolis.

Total time and demand deposits by counties and states are available in the F.D.I.C. publication, Summary of Deposits in All Commercial and Mutual Savings Banks. Information on bank balance sheet items and operations can be obtained in two other F.D.I.C. publications, Bank Operating Statistics and Assets and Liabilities - Commercial and Mutual Savings.

Detailed data about the operations of savings and loan associations are presented in the annual Asset and Liability Trends, published by the Federal Home Loan Bank Board. Small loan company and state-chartered credit union operations in Michigan are covered in Analysis and Recapitulation of Reports of Regulatory Loan Licenses and Abstracts of Reports of Credit Unions, respectively, of the Financial Institutions Bureau, Michigan Department of Commerce. Similar data on credit unions chartered by the federal government are given in the Annual Report published by the Bureau of Federal Credit Unions. Information on production credit associations is available in the Annual Report of the U.S. Farm Credit Administration.

The basic source of information about insurance operations in Michigan is the Annual Report of the Michigan Department of Insurance. This includes the home office address and a summary of financial conditions for all companies licensed to do business in Michigan. The annual Life Insurance Fact Book of the Institute of Life Insurance presents data about the amount of insurance in force, benefit payments, premium collections, and so forth, for the United States, as well as a good deal of information on a state basis.

Statistics on the number of certified public accountants and real estate brokers and salesmen licensed in each county are tabulated by the Michigan Department of Regulation, which licenses these occupations.

The economic importance of finance, insurance, and real estate in each Michigan county (Table XXI-6) was developed from the personal income accounts that are prepared by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income statistics are discussed in the introduction to chapter VI.

Data on health insurance are included in chapter III.

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TABLE XXII-1. NUMBER OF BANKS, SAVINGS AND LOAN, AND CREDIT UNION OFFICES AND BRANCHES IN MICHIGAN, YEAR END: 1959-1978

Year	Commercial banks			Savings and loan		Credit unions[b]		
	Unit banks	Banks with branches	Total offices[a]	Number of associations	Total offices[a]	State chartered	Federally chartered	Total
1959	261	112	916	73	n.a.	673	423	1,096
1960	246	134	958	73	n.a.	716	417	1,133
1961	230	143	990	73	n.a.	763	411	1,174
1962	221	150	1,042	73	n.a.	782	406	1,188
1963	214	153	1,095	72	n.a.	781	406	1,187
1964	193	168	1,166	72	n.a.	782	408	1,190
1965	176	178	1,247	72	207	790	399	1,189
1966	157	190	1,335	71	210	815	379	1,194
1967	151	190	1,390	71	212	813	368	1,182
1968	145	193	1,439	70	222	818	366	1,184
1969	133	199	1,485	70	239	810	371	1,181
1970	129	202	1,534	68	248	787	372	1,159
1971	122	209	1,685	65	390	754	364	1,118
1972	111	221	1,662	65	307	724	368	1,092
1973	107	233	1,740	65	326	706	363	1,069
1974	98	249	1,827	66	360	679	365	1,044
1975	88	263	1,913	67	400	656	367	1,023
1976	85	275	1,993	66	434	630	358	988
1977	82	280	2,066	65	478	611	352	963
1978	72	293	2,158	65	526	587	350	937

SOURCE: Federal Deposit Insurance Corporation, Annual Report, 1959 through 1978 (Washington, D.C.: annually), Table 103 (1979); Federal Home Loan Bank Board, Trends in the Savings and Loan Field, 1959 through 1970, and Asset and Liability Trends, 1971 through 1976 (Washington, D.C.: annually), Table 8 (1976); Federal Home Loan Bank Board, Savings and Home Financing Source Book (Washington, D.C.: 1979), Table 35; and National Credit Union Administration, Annual Report, 1960 through 1977 (Washington, D.C.: annually), Tables 1 and 17 (1979).

a. Main offices plus branches.

b. Branch office data are not available.

n.a.: not available.

TABLE XXII-2. YEAR-END ASSETS OF COMMERCIAL BANKS, SAVINGS AND LOAN ASSOCIATIONS, AND CREDIT UNIONS IN MICHIGAN AND THE UNITED STATES: 1961-1978

(In millions of dollars)

Year	Michigan			United States			Michigan as a percentage of United States		
	Commercial banks	Savings & loan assoc.	Credit unions	Commercial banks	Savings & loan assoc.	Credit unions	Commercial banks	Savings & loan assoc.	Credit unions
1961	10,259	2,055	553	277,374	82,135	6,383	3.70	2.50	8.66
1962	11,490	2,356	622	295,983	93,605	7,186	3.88	2.52	8.64
1963	12,358	2,705	709	311,791	107,559	8,131	3.96	2.51	8.72
1964	13,915	3,093	831	345,130	119,355	9,361	4.03	2.59	8.87
1965	15,457	3,341	954	375,394	129,580	10,552	4.12	2.58	9.03
1966	16,977	3,424	1,053	402,946	133,933	11,606	4.21	2.56	9.07
1967	19,108	3,719	1,164	450,713	143,534	12,775	4.24	2.59	9.10
1968	21,190	3,979	1,306	500,238	152,890	14,210	4.24	2.60	9.18
1969	22,684	4,288	1,457	530,715	162,149	15,900	4.27	2.64	9.16
1970	24,456	4,830	1,605	572,682	176,183	17,960	4.27	2.73	8.93
1971	26,568	5,760	1,816	638,010	206,023	21,134	4.16	2.80	8.59
1972	29,078	6,842	2,047	732,519	243,127	24,609	3.97	2.81	8.31
1973	31,627	7,692	2,227	827,081	271,905	28,418	3.82	2.83	7.83
1974	33,147	8,478	2,388	906,385	295,545	31,953	3.66	2.87	7.47
1975	34,585	9,753	2,698	944,656	338,233	37,964	3.66	2.88	7.10
1976	36,914	11,365	2,929	1,004,020	391,907	40,123	3.68	2.90	7.30
1977	41,776	13,257	3,229	1,129,712	459,282	43,451	3.70	2.89	7.43
1978	48,165	15,253	3,657	n.a.	510,753	51,417	n.a.	2.99	7.11

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, December 1960-1977 (Washington, D.C.: annually), Table A; Federal Home Loan Bank Board, Trends in the Savings and Loan Field 1958 through 1971, Asset and Liability Trends, 1971 through 1976 (Washington, D.C.: annually), Table 8 (1976); Michigan Department of Commerce, Financial Institutions Bureau, Abstract of Reports of Credit Unions, 1960 through 1976 (Lansing: annually), pp. 3, 5 (1976); Federal Home Loan Bank Board, Savings and Home Financing Source Book (Washington, D.C.: 1978), Table 3; and Federal Home Loan Bank Board, Combined Financial Statements, 1978 (Washington, D.C.: 1979), Tables 1 and 23.

n.a.: not available.

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1977, 1978, AND 1979

(In thousands of dollars)

Assets	1977	1978	1979
Cash and due from depository institutions--total	4,996,595	5,702,205	4,704,133
Currency and coin	704,838	823,976	913,529
Reserve with Federal Reserve banks	946,015	1,041,921	671,139
Demand balances with commercial banks in United States	1,200,180	1,320,452	1,085,966
Other balances with commercial banks in United States	114,412	92,076	75,530
Balances with banks in foreign countries	594,322	564,672	392,874
Cash items and unposted debits	1,436,828	1,809,725	1,519,638
Securities--total	10,322,572	8,661,463	9,325,776
Investment securities--total	10,251,953	n.a.	n.a.
U.S. Treasury securities	3,847,945	3,771,723	3,631,443
Obligations of other U. S. government agencies	978,777	1,114,299	1,345,619
Obligations of states and subdivisions	5,113,961	5,434,597	6,126,548
Other bonds, notes, and debentures	311,270	190,846	168,965
Corporate stock	.46,245	42,471	42,992
Trading account securities	24,374	61,671	50,992
Federal funds sold and securities purchased under agreements to resell	1,847,065	2,367,628	1,744,550
Loans net	22,813,723	25,725,302	28,091,179
Plus: Reserve for possible loan losses	226,580	252,975	267,714
Loans--total	23,040,303	25,978,277	28,358,893
Unearned income on loans	556,550	644,318	663,156
Loans--gross	23,596,853	26,622,595	29,022,049
Real estate loans--total	9,970,909	11,403,530	12,482,877
Construction and land development	368,627	475,632	533,418
Secured by farmland	197,826	220,190	208,986
Secured by 1-4 family residential properties:			
Insured by F.H.A. and guaranteed by Vet. Admin.	814,041	773,865	725,227
Conventional	6,072,378	5,406,146	5,975,457

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1977, 1978, AND 1979 (cont.)

(In thousands of dollars)

Assets	1977	1978	1979
Secured by multifamily (5 or more) res. properties:			
Insured by Federal Housing Administration	2,068	4,114	5,496
Conventional	263,142	266,972	289,082
Secured by nonfarm nonresidential properties	2,252,827	2,492,038	2,749,401
Loans to financial institutions--total	1,063,315	n.a.	n.a.
REIT's and mortgage companies	334,211	304,899	253,241
Domestic commercial banks	32,606	36,695	22,577
Banks in foreign countries (includes domestic 1976)	173,902	132,420	127,000
Other depository institutions	7,853	n.a.	n.a.
Other financial institutions	514,743	n.a.	n.a.
Loans for purchasing or carrying securities	307,981	n.a.	n.a.
Loans to farmers	377,522	395,203	409,318
Commercial and industrial loans (incl. open market paper)	5,664,230	6,137,707	7,072,743
Loans to individual--total	5,437,584	n.a.	n.a.
Automobile installment loans	2,231,665	2,758,727	2,997,498
Retail (charge account) credit card loans	703,210	891,690	990,860
Check credit and revolving credit loans	94,924	101,809	110,719
Other retail consumer installment loans:			
Mobile homes, not including travel trailers	281,342	298,932	323,246
Other retail consumer goods	535,859	534,211	602,253
Residential repair and modernization installment loans	367,091	374,158	450,404
Other installment loans for personal expenditures	618,738	534,809	590,353
Single-payment loans for personal expenditures	604,756	661,906	686,839
All other loans	775,312	798,469	585,374
TOTAL LOANS AND SECURITIES	33,136,295	34,639,740	37,684,469

TABLE XXII-3. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1977, 1978, AND 1979 (cont.)

(In thousands of dollars)

Assets	1977	1978	1979
Direct lease financing	65,965	145,843	161,067
Bank premises furniture and fixtures	639,032	725,493	822,634
Real estate owned, other than bank premises	77,973	68,325	57,939
Investments in subsidiaries not consolidated	68,668	5,227	20,364
Customers' liabilities on acceptances outstanding	84,086	250,493	364,440
Other assets	860,815	1,005,058	1,236,019
TOTAL ASSETS	41,776,494	46,748,342	48,712,698

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, 1977 (Washington, D.C.: annually), Table 7 (1977); and special release.

NOTE: One Michigan commercial bank is not insured.

n.a.: not available.

TABLE XXII-4. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1977, 1978, AND 1979

(In thousands of dollars)

Liabilities, reserves, and capital accounts	1977	1978	1979
Business and personal deposits--total	31,585,775	31,811,519	32,300,059
Individuals, partnerships, and corporations--demand	8,815,778	9,339,960	9,008,467
Individuals, partnerships, and corporations--savings	12,169,240	12,089,162	10,848,895
Individuals and nonprofit organizations--savings	11,628,403	9,325,887	8,253,891
Corporations and other profit organizations--savings	540,837	561,531	466,960
Individuals, partnerships, and corporations--time	9,836,391	9,492,771	11,786,924
Deposits accumulated for payment of personal loans	409	462	0
Certified and officers' checks, letter of credit, travelers' checks, and so forth	763,957	889,164	655,773
Government deposits--total	3,948,793	4,534,183	3,969,885
U.S. government--demand	307,089	115,228	74,018
U.S. government--savings	591	153	0
U.S. government--time	2,046	2,751	3,966
States and subdivisions--demand	708,994	743,166	659,884
States and subdivisions--savings	620,599	526,835	437,268
States and subdivisions--time	2,309,474	3,146,050	2,794,749
Domestic interbank deposits--total	506,862	595,667	538,457
Commercial banks in the United States--demand	478,589	541,988	519,382
Commercial banks in the United States--savings	227	30	9
Commercial banks in the United States--time	27,103	52,918	19,009
Mutual savings banks in the United States--demand	443	29	57
Mutual savings banks in the United States--savings	0	702	0
Mutual savings banks in the United States--time	500	0	0
Foreign government and bank deposits--total	52,312	92,326	55,844
Foreign governments, central banks, etc.--demand	606	391	458
Foreign governments, central banks, etc.--savings	0	0	0
Foreign governments, central banks, etc.--time	8,270	7,270	18,000
Banks in foreign countries--demand	33,916	64,665	37,386
Banks in foreign countries--savings	0	0	0
Banks in foreign countries--time	9,520	20,000	0
TOTAL DEPOSITS	36,093,742	39,254,214	39,797,191
Demand	11,109,372	11,696,353	10,962,516
Savings and time	24,984,370	27,557,861	28,834,675

TABLE XXII-4. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1977, 1978, AND 1979 (cont.)

(In thousands of dollars)

Liabilities, reserves, and capital accounts	1977	1978	1979
Miscellaneous liabilities--total	2,648,185	3,509,608	4,744,214
Federal funds purchased (borrowed) and securities sold under agreements to repurchase	1,919,900	2,490,617	3,367,741
Other liabilities for borrowed money	59,733	71,525	103,618
Mortgage indebtedness	21,704	59,787	62,505
Acceptances outstanding	84,086	250,493	364,440
Other liabilities	562,762	637,186	825,910
TOTAL LIABILITIES	38,741,927	43,431,147	45,219,855
Reserves for loans and securities[a]	0	0	0
Subordinated notes and debentures	199,808	211,503	209,453
Equity capital--total	2,834,759	3,105,692	3,283,390
Preferred stock--par value	2,190	2,040	2,040
Common stock--par value	577,282	621,880	651,041
Surplus	1,137,437	1,209,636	1,215,206
Undivided profits	1,069,221	1,019,164	1,111,466
Reserve for contingencies and other capital reserves	48,629	25,206	26,215
TOTAL LIABILITIES AND EQUITY CAPITAL	41,776,494	48,151,486	50,201,468

SOURCE: Federal Deposit Insurance Corporation, Assets and Liabilities, Commercial and Mutual Savings Banks, 1977 (Washington, D.C.: annually), Table 7 (1977); and special release.
NOTE: One Michigan commercial bank is not insured.
a. Reserves for loan losses are listed as part of assets in 1977.

TABLE XXII-5. NUMBER OF BANKS OPERATING IN AND BANKING OFFICES LOCATED IN MICHIGAN, BY COUNTY: 30 JUNE 1979

County	Banks	Banking offices	County	Banks	Banking offices
Alcona	2	3	Lake	1	2
Alger	3	6	Lapeer	7	20
Allegan	7	19	Leelanau	3	5
Alpena	3	13	Lenawee	11	32
Antrim	7	9	Livingston	6	19
Arenac	5	6	Luce	2	2
Baraga	2	2	Mackinac	3	7
Barry	6	7	Macomb	26	134
Bay	8	39	Manistee	2	9
Benzie	4	5	Marquette	7	23
Berrien	11	52	Mason	3	8
Branch	4	13	Mecosta	4	15
Calhoun	9	29	Menominee	4	9
Cass	5	14	Midland	4	15
Charlevoix	5	10	Missaukee	2	3
Cheboygan	2	8	Monroe	8	27
Chippewa	4	13	Montcalm	9	16
Clare	3	7	Montmorency	2	3
Clinton	5	15	Muskegon	7	30
Crawford	2	5	Newaygo	7	9
Delta	6	13	Oakland	35	251
Dickinson	6	11	Oceana	3	6
Eaton	9	21	Ogemaw	4	5
Emmet	4	10	Ontonagon	3	5
Genesee	11	93	Osceola	5	5
Gladwin	3	5	Oscoda	1	2
Gogebic	4	5	Otsego	2	5
Grand Traverse	5	27	Ottawa	14	46
Gratiot	5	12	Presque Isle	3	3
Hillsdale	6	12	Roscommon	2	6
Houghton	5	13	Saginaw	8	54
Huron	9	16	St. Clair	8	33
Ingham	12	60	St. Joseph	9	22
Ionia	8	16	Sanilac	7	15
Iosco	3	9	Schoolcraft	2	4
Iron	4	8	Shiawassee	7	20
Isabella	7	16	Tuscola	12	20
Jackson	7	39	Van Buren	8	16
Kalamazoo	7	59	Washtenaw	15	65
Kalkaska	3	4	Wayne	27	424
Kent	20	127	Wexford	3	13
Keweenaw	1	1	TOTAL	372	2,260

SOURCE: Federal Deposit Insurance Corporation, Summary of Deposits in all Commercial and Mutual Savings Banks, June 30, 1979 (Washington D.C.: 1979), Table 2.

NOTE: Several banks operate in more than one county.

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1977 AND 1978

County	Labor and proprietors' earnings in finance, insurance, and real estate establishments			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Livingston	7.21	14,450	7.43	18,021
Lake	5.78	749	6.73	818
Houghton	6.91	7,472	6.71	7,874
Oakland	5.66	381,362	6.07	464,873
Roscommon	5.19	1,911	5.90	2,281
Gladwin	5.89	1,899	5.79	2,148
Missaukee	4.74	943	5.19	1,129
Grand Traverse	4.51	12,432	4.89	15,828
Ingham	4.31	98,372	4.44	114,508
Wayne	4.42	854,064	4.43	934,237
Kent	4.15	113,718	4.39	137,852
Iron	3.84	1,573	4.25	1,847
Cheboygan	4.08	2,530	4.02	2,898
Montmorency	3.79	563	3.90	793
Wexford	3.33	3,544	3.76	4,265
Chippewa	2.66	3,260	3.73	3,581
Clinton	3.56	3,690	3.71	4,229
Arenac	8.03	2,923	3.67	1,322
Emmet	3.31	3,254	3.53	3,940
Clare	3.68	1,745	3.43	1,881
Crawford	3.05	892	3.38	1,017
Shiawassee	2.79	5,690	3.29	7,176
Menominee	3.03	2,573	3.23	3,143
Saginaw	3.02	46,691	3.18	54,992
Gogebic	2.98	1,533	3.16	1,816
Eaton	3.11	5,207	3.15	5,745
Berrien	3.05	28,195	3.14	31,025
Mecosta	3.29	2,962	3.14	3,159
Newaygo	2.97	2,498	3.14	2,902
St. Clair	3.07	15,165	3.12	17,495
Cass	3.12	4,575	3.10	5,151
Delta	2.78	4,335	3.07	5,099
Charlevoix	2.85	2,130	2.98	2,530
Kalamazoo	2.91	38,693	2.98	44,581
Schoolcraft	2.77	820	2.78	888

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in finance, insurance, and real estate establishments			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Lapeer	2.66	5,163	2.77	5,921
Benzie	2.83	893	2.73	968
Manistee	2.74	2,343	2.71	2,611
Iosco	2.56	2,825	2.71	3,203
Gratiot	2.37	4,223	2.68	5,101
Bay	2.43	13,204	2.66	15,487
Lenawee	2.44	10,165	2.65	11,804
Oceana	2.27	880	2.62	1,388
Monroe	2.36	10,397	2.61	12,070
Jackson	2.48	20,364	2.56	22,998
Mason	2.63	2,531	2.51	2,693
Otsego	2.34	1,484	2.51	1,856
Sanilac	2.46	3,256	2.49	3,664
Ionia	2.77	4,304	2.48	4,609
Huron	2.37	3,262	2.39	3,907
Branch	2.31	4,253	2.33	4,942
Muskegon	2.21	17,814	2.32	20,597
Isabella	2.20	3,899	2.31	4,709
Alger	2.36	606	2.28	607
St. Joseph	2.10	5,252	2.27	6,120
Marquette	2.30	8,040	2.26	9,334
Antrim	2.44	1,078	2.24	1,177
Ottawa	2.21	14,907	2.24	17,631
Montcalm	2.11	3,596	2.23	4,082
Van Buren	2.28	4,100	2.14	4,501
Genesee	1.94	67,561	2.09	81,087
Ontonagon	1.96	1,007	2.08	1,059
Macomb	1.83	73,658	1.99	89,175
Dickinson	2.03	2,632	1.97	2,934
Washtenaw	1.76	37,013	1.94	47,511
Osceola	1.85	1,075	1.93	1,160
Tuscola	1.68	2,844	1.91	3,671
Mackinac	1.99	706	1.84	836
Presque Isle	1.88	793	1.78	925
Ogemaw	1.70	664	1.73	785

TABLE XXII-6. ECONOMIC IMPORTANCE OF FINANCE, INSURANCE, AND REAL ESTATE IN MICHIGAN COUNTIES: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in finance, insurance and real estate establishments			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Luce	1.59	516	1.49	533
Allegan	1.42	2,947	1.33	3,404
Midland	1.16	6,434	1.25	7,519
Alcona	(D)	(D)	(D)	(D)
Alpena	(D)	(D)	(D)	(D)
Baraga	(D)	(D)	(D)	(D)
Barry	(D)	(D)	(D)	(D)
Calhoun	(D)	(D)	(D)	(D)
Hillsdale	(D)	(D)	(D)	(D)
Kalkaska	(D)	(D)	(D)	(D)
Keweenaw	(D)	(D)	(D)	(D)
Leelanau	(D)	(D)	(D)	(D)
Oscoda	(D)	(D)	(D)	(D)
Michigan	3.71	2,057,249	3.81	2,394,318
United States	5.57	64,931,000	5.77	76,207,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977 (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Tables VI-2 and VI-3. The earnings residence adjustment for all counties is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXII-7. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN EARNINGS IN FINANCE, INSURANCE, AND REAL ESTATE: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Oceana	90	36	Clinton	88	15
Tuscola	100	29	St. Clair	77	15
Washtenaw	87	28	Crawford	83	14
Grand Traverse	127	27	Montcalm	74	14
Shiawassee	92	26	Iosco	109	13
Livingston	108	25	Jackson	75	13
Otsego	117	25	Gladwin	3	13
Montmorency	99	23	Sanilac	81	13
Menominee	185	22	Cass	142	13
Oakland	177	22	Dickinson	103	11
Macomb	128	21	Manistee	91	11
Emmet	109	21	Berrien	85	10
Isabella	100	21	Eaton	73	10
Gratiot	69	21	Chippewa	87	10
Kent	81	21	Van Buren	(D)	10
Missaukee	109	20	Alger	48	10
Huron	17	20	Lake	132	9
Wexford	108	20	Antrim	47	9
Charlevoix	96	19	Wayne	34	9
Roscommon	84	19	Benzie	79	8
Gogebic	54	18	Osceola	97	8
Mackinac	135	18	Clare	98	8
Ottawa	109	18	Schoolcraft	55	8
Ogemaw	70	18	Ionia	78	7
Saginaw	91	18	Mecosta	67	7
Delta	53	18	Mason	48	6
Presque Isle	98	17	Houghton	96	5
Genesee	83	17	Ontonagon	69	5
Bay	87	17	Luce	70	3
Midland	91	17	Arenac	134	-55
Iron	101	17	Alcona	(D)	(D)
St. Joseph	50	17	Alpena	(D)	(D)
Lenawee	100	16	Baraga	(D)	(D)
Marquette	104	16	Barry	(D)	(D)
Allegan	109	16	Calhoun	(D)	(D)
Ingham	84	16	Hillsdale	(D)	(D)
Newaygo	74	16	Kalkaska	(D)	(D)
Branch	76	16	Keweenaw	(D)	(D)
Muskegon	70	16	Leelanau	(D)	(D)
Monroe	103	16	Oscoda	(D)	(D)
Cheboygan	70	15			
Lapeer	79	15	Michigan	71	14
Kalamazoo	(D)	15	United States	75	14

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.
NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings during 1977. These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Table VI-2 and VI-3. The earnings residence adjustment for all counties is shown in Table VI-12.
(D): Withheld to avoid disclosing data for individual companies.

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1979

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Alcona	$ 3,743	$ 8,174	$ 9,457	$ 339	$ 1,037	$ 22,897
Alger	4,457	10,810	13,420	820	3,170	33,043
Allegan	35,182	64,690	63,836	4,471	15,558	185,079
Alpena	20,222	48,571	54,554	4,922	17,461	148,407
Antrim	10,378	22,822	21,733	1,818	5,906	63,353
Arenac	7,612	17,647	23,440	1,214	2,919	53,221
Baraga	5,352	9,594	12,337	1,002	1,995	30,539
Barry	17,248	29,935	22,489	4,068	11,252	85,487
Bay	74,404	165,271	135,738	19,720	26,080	432,908
Benzie	7,375	17,080	20,119	785	2,054	47,789
Berrien	136,945	118,896	191,825	11,539	73,364	538,325
Branch	28,727	45,248	56,751	4,553	16,111	152,872
Calhoun	127,117	147,304	148,526	12,553	57,643	513,931
Cass	23,580	35,143	43,828	4,148	9,456	117,467
Charlevoix	16,718	31,063	35,636	1,250	4,916	90,464
Cheboygan	11,754	29,050	29,547	3,390	2,940	77,543
Chippewa	17,137	36,879	46,305	6,802	7,903	116,126
Clare	14,998	27,061	32,396	4,463	4,563	84,130
Clinton	20,578	40,892	47,371	3,273	23,342	136,496
Crawford	5,086	7,008	8,801	742	2,536	24,457
Delta	24,072	56,100	67,355	1,670	24,156	174,765
Dickinson	23,013	33,563	46,141	3,503	4,173	111,322
Eaton	35,149	77,831	64,086	3,196	17,318	199,290
Emmet	25,171	40,941	67,237	2,326	12,296	149,792
Genesee	319,431	655,874	566,275	41,939	270,430	1,882,916

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1979 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Gladwin	$ 7,421	$ 18,808	17,111	$ 1,488	$ 5,205	$ 50,501
Gogebic	13,471	30,367	42,589	1,771	3,838	93,100
Grand Traverse	65,982	96,987	143,003	2,970	39,748	354,984
Gratiot	39,517	64,569	65,386	5,784	9,269	186,183
Hillsdale	27,350	47,734	68,839	3,868	10,854	160,067
Houghton	24,845	34,617	46,129	3,478	9,592	120,100
Huron	28,518	62,556	99,689	3,664	14,105	210,121
Ingham	282,825	362,942	325,438	23,516	99,504	1,146,719
Ionia	26,031	45,904	65,545	1,282	15,394	155,712
Iosco	12,247	32,698	24,921	1,920	6,013	79,139
Iron	9,371	19,977	23,521	2,356	3,095	59,032
Isabella	26,144	47,953	43,879	3,219	5,142	127,414
Jackson	138,615	157,340	135,739	19,661	36,023	493,461
Kalamazoo	182,895	201,946	235,673	12,292	48,848	695,443
Kalkaska	4,616	9,716	9,270	403	3,974	28,155
Kent	493,100	580,842	759,703	19,481	173,969	2,099,764
Keweenaw	531	1,398	1,467	355	577	4,328
Lake	2,439	5,028	3,052	885	829	12,376
Lapeer	32,268	64,495	76,601	6,738	17,466	199,904
Leelanau	4,052	14,101	17,002	302	4,618	40,234
Lenawee	72,396	135,135	136,686	7,170	31,398	385,810
Livingston	49,040	69,758	62,693	5,249	22,815	212,778
Luce	3,498	6,474	5,126	497	2,333	18,074
Mackinac	6,049	11,042	11,892	870	2,319	32,478
Macomb	441,016	851,298	755,051	30,614	226,238	2,329,691

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1979 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government Demand	State and local government Time and savings	Total[b]
Manistee	$ 12,783	$ 49,574	$ 32,753	$ 2,012	$ 6,924	$ 104,764
Marquette	41,414	80,602	118,239	8,579	42,372	294,693
Mason	17,254	24,233	45,018	2,015	4,438	93,692
Mecosta	15,826	28,494	37,755	2,594	7,827	93,255
Menominee	15,706	30,356	36,796	1,970	6,230	91,940
Midland	50,915	83,541	72,651	3,572	21,276	235,199
Missaukee	5,209	12,159	11,675	481	2,008	31,762
Monroe	52,199	138,696	107,052	8,354	48,989	361,319
Montcalm	27,293	49,793	71,097	5,222	10,405	165,869
Montmorency	4,577	12,220	13,187	655	3,109	33,933
Muskegon	103,468	182,484	171,297	7,824	37,182	509,412
Newaygo	16,543	29,034	37,524	2,042	6,486	92,358
Oakland	1,142,238	1,503,336	1,645,922	51,814	429,481	4,835,922
Oceana	11,397	17,447	22,853	1,597	4,791	58,373
Ogemaw	12,547	22,078	20,367	1,478	4,788	61,642
Ontonagon	5,798	9,708	13,346	860	4,154	34,125
Osceola	8,859	20,234	17,711	2,131	3,205	52,516
Oscoda	2,576	8,130	7,526	420	1,571	20,383
Otsego	11,307	22,975	19,997	524	6,814	62,389
Ottawa	125,602	190,321	214,348	8,436	68,176	613,498
Presque Isle	7,004	16,506	18,421	1,082	3,240	46,303
Roscommon	10,251	29,697	27,313	1,640	10,310	79,940
Saginaw	177,306	297,286	245,298	15,640	104,722	856,075
St. Clair	90,818	179,482	229,105	13,205	48,298	568,717
St. Joseph	41,951	66,006	78,343	3,846	14,740	206,462

TABLE XXII-8. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1979 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings	Other time[a]	State and local government		Total[b]
				Demand	Time and savings	
Sanilac	$ 25,251	$ 53,285	$ 70,888	$ 3,388	$ 13,792	$ 167,643
Schoolcraft	5,894	14,046	19,056	1,259	3,477	44,088
Shiawassee	39,105	85,096	94,081	6,606	23,140	250,500
Tuscola	31,172	66,249	68,627	4,147	17,166	188,212
Van Buren	34,864	57,034	60,294	5,682	15,574	174,950
Washtenaw	243,719	293,791	253,017	32,832	108,357	947,456
Wayne	3,553,468	3,524,869	4,060,418	221,594	954,438	13,376,675
Wexford	16,057	47,315	68,173	2,377	8,109	143,604
TOTAL	8,970,458	11,996,209	13,015,356	730,217	34,933,334	39,665,856

SOURCE: Federal Deposit Insurance Corporation, Summary of Deposits in all Commercial and Mutual Savings Banks, June 30, 1979 (Washington, D.C.: 1980), special release.

a. Individuals, partnerships, and corporations.

b. Includes U.S. government deposits, deposits of foreign governments, certified checks, and other types of deposits not shown separately.

TABLE XXII-9. NUMBER, ASSETS, FIRST MORTGAGE LOANS, AND SAVINGS CAPITAL OF MICHIGAN SAVINGS AND LOAN ASSOCIATIONS, 31 DECEMBER: 1951-1978

(In thousands of dollars)

Year	Number of associations	Total assets	Mortgage loans and contract	Savings capital
1951	70	457,799	363,600	386,754
1952	72	537,695	423,902	468,165
1953	73	650,738	513,318	572,277
1954	73	772,502	612,860	680,026
1955	73	919,084	735,198	805,887
1956	74	1,057,135	844,050	928,824
1957	74	1,250,075	974,758	1,121,500
1958	73	1,434,317	1,115,464	1,281,532
1959	73	1,643,904	1,292,979	1,456,198
1960	73	1,847,920	1,460,049	1,650,087
1961	73	2,054,557	1,650,398	1,830,714
1962	73	2,356,491	1,893,083	2,100,912
1963	72	2,705,419	2,207,693	2,400,485
1964	72	3,093,414	2,557,042	2,773,569
1965	72	3,340,838	2,845,584	2,944,913
1966	71	3,424,042	2,925,831	2,996,855
1967	71	3,719,205	3,174,279	3,285,199
1968	70	3,979,388	3,417,190	3,508,187
1969	70	4,288,115	3,695,319	3,677,844
1970	68	4,830,457	4,094,409	4,205,130
1971	65	5,759,871	4,898,408	5,012,060
1972	65	6,842,107	5,798,053	6,043,166
1973	65	7,691,953	6,596,649	6,765,835
1974	66	8,478,123	7,224,272	7,334,501
1975	67	9,753,163	8,092,134	8,642,753
1976	66	11,364,523	9,379,124	10,180,818
1977	66	13,263,886	11,052,458	11,768,151
1978	66	15,255,302	12,966,272	13,246,417

SOURCE: Federal Home Loan Bank Board, Trends in the Savings and Loan Field, 1951 through 1970 (name was changed in 1971), Asset and Liability Trends, 1971 through 1977 (Washington, D.C.: annually), Table 8, 1977, and special release.

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978

County and association[a]	Total assets		
	1976	1977	1978
Alpena			
First Federal S&L, Alpena	29,210,170	36,549,854	40,836,864
Barry			
Hastings S&L, Hastings	18,548,604	24,004,171	26,848,505
Bay			
Mutual S&L, Bay City	265,131,804	330,863,522	369,054,909
Berrien			
First Federal S&L, Niles	97,949,875	119,436,781	127,682,019
LaSalle Federal S&L, Buchanan	53,551,008	66,855,215	79,424,103
New Buffalo S&L, New Buffalo	15,268,651	20,861,566	23,936,902
People Savings Assn., Benton Harbor	101,366,047	111,624,648	112,680,971
St. Joseph S&L, St. Joseph	62,322,911	76,131,569	84,962,161
Branch			
Branch County Federal S&L, Coldwater	34,670,866	47,266,627	52,743,949
Calhoun			
First Federal S&L, Battle Creek[b]	149,376,132	179,106,272	--
Homestead S&L, Albion	12,993,815	14,623,326	16,089,398
Marshall S&L, Marshall	12,520,420	14,518,351	16,433,253
Peoples S&L, Battle Creek	62,431,644	77,963,658	87,027,074
Cass			
First Savings Assn., Dowagiac	41,285,538	51,666,925	52,645,476
Eaton			
Eaton Federal S&L, Charlotte	41,208,972	51,320,359	55,332,418
Genesee			
First Federal S&L, Flint	124,919,004	157,065,342	183,674,848
Grand Traverse			
Northwestern S&L, Traverse City	32,273,310	46,182,796	56,705,241
Houghton			
Detroit & Northern S&L, Hancock	570,212,810	687,197,000	761,883,000
Ingham			
Capitol S&L, Lansing	298,591,596	337,657,112	443,952,654
First State Savings Assn., East Lansing	57,546,769	64,431,782	68,091,179
Union S&L, Lansing	79,669,414	103,234,238	108,615,120
Ionia			
Belding S&L, Belding	8,780,125	9,798,247	10,690,880
Iron			
Iron S&L, Iron River	4,140,619	5,005,181	5,461,419
Jackson			
First Federal S&L, Jackson	65,282,931	83,297,630	93,509,368
Security S&L, Jackson	86,770,203	109,076,800	124,015,360
Kalamazoo			
Fidelity Federal S&L, Kalamazoo	101,362,350	124,647,594	138,459,913
First Federal S&L, Kalamazoo	211,682,895	256,667,112	290,174,565
Kalamazoo S&L, Kalamazoo	88,438,047	120,161,171	136,033,374

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978 (cont.)

County and association[a]	Total assets		
	1976	1977	1978
Kent			
Grand Rapids Mutual Federal S&L, Grand Rapids	108,320,435	135,786,606	159,523,746
Kentwood S&L, Kentwood	5,981,847	20,429,263	33,050,000
Lowell S&L, Lowell[c]	5,745,567	7,087,970	7,644,000
Mutual Home Federal S&L, Grand Rapids	205,945,744	258,605,399	289,891,064
West Side Federal S&L, Grand Rapids	45,390,418[b]	53,369,661	58,479,672
Lenawee			
First Federal S&L, Adrian	94,137,973	116,971,941	132,885,474
Livingston			
First Federal S&L, Howell	83,550,608	106,866,254	127,614,014
Macomb			
Macomb S&L, St. Clair Shores	11,105,026	13,288,850	14,052,802
Mason			
Ludington Federal S&L, Ludington	19,280,723	25,353,598	26,427,789
Midland			
Midland Federal S&L, Midland	44,948,345	53,497,307	62,836,290
Monroe			
Peoples Federal S&L, Monroe	139,518,637	175,577,744	213,713,215
Muskegon			
Muskegon Federal S&L, Muskegon	159,342,961	198,600,000	209,916,209
Oakland			
American Federal S&L, Southfield	523,654,413	597,418,806	744,702,686
First Farmington S&L, Farmington	19,232,841	23,309,374	25,612,905
First Federal S&L of Oakland, Pontiac	292,879,863	404,898,456	451,229,850
Metropolitan Savings Assn., Farmington	317,730,658	341,454,955	327,838,721
Standard Federal S&L, Troy	1,661,240,123	2,087,100,913	2,467,173,763
Surety Federal S&L, Southfield	86,218,997	109,594,414	133,544,457
Ottawa			
Ottawa S&L, Holland	86,016,903	108,104,177	129,540,256
Saginaw			
First S&L, Saginaw	316,182,760	407,796,323	485,498,941
Landmark S&L, Saginaw	10,824,813	25,063,034	34,987,200
Family Federal S&L, Saginaw	246,057,756	301,155,498	338,162,438
St. Clair			
Citizens Federal S&L, Port Huron	130,345,155	163,598,053	176,693,441
St. Joseph			
Sturgis S&L, Sturgis	27,171,941	36,500,327	43,360,950
Three Rivers S&L, Three Rivers	45,209,135	59,151,156	61,469,455
Van Buren			
Van Buren S&L, South Haven	20,375,097	24,057,025	28,955,778

TABLE XXII-10. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 30 JUNE 1976, AND 31 DECEMBER 1977 AND 1978 (cont.)

County and association[a]	Total assets		
	1976	1977	1978
Washtenaw			
Ann Arbor Federal S&L, Ann Arbor[b]	314,094,158	388,115,957	678,822,394
First Savings Assn., Ypsilanti	14,850,605	15,968,613	18,181,933
Michigan S&L, Ann Arbor	6,075,329	15,421,036	26,561,492
Wayne			
Colonial Federal S&L, Grosse Pte. Woods	135,497,037	164,159,783	183,496,977
Dearborn Federal S&L, Dearborn	97,910,660	121,964,877	136,534,651
Detroit Federal S&L, Detroit	67,261,624	70,003,713	82,764,280
Down River Federal S&L, Taylor	237,101,946	289,308,864	330,287,091
First Federal S&L, Dearborn	104,084,837	156,054,641	178,744,233
First Federal S&L, Detroit	2,025,912,868	2,514,611,888	2,935,576,130
Guaranty Federal S&L, Wyandotte	95,792,509	125,134,621	135,537,236
Home Federal S&L, Detroit	21,136,627	21,666,508	24,013,644
Peoples Federal S&L, Detroit	129,919,370	152,702,781	168,714,130

SOURCE: Michigan Savings and Loan League, Facts and Figures (Lansing: 1977); and Federal Home Loan Bank of Indianapolis, 1978 Roster of Members (Indianapolis: 1978).

NOTE: S&L stands for savings and loan.

a. There are no savings and loan associations headquartered in counties not listed, although there may be branch offices of Michigan's 65 savings and loan associations in these counties.

b. Ann Arbor Federal Savings and Loan and First Savings and Loan of Battle Creek merged effective 1 April 1978.

c. Lowell Savings and Loan is uninsured.

TABLE XXII-11. MORTGAGE LOANS MADE BY INSURED SAVINGS AND LOAN ASSOCIATIONS IN MICHIGAN: 1959-1978

(In thousands of dollars)

Year	Home construction	Home purchase	Other purposes		Total loans
			Construction and purchase of other real property	Refinancing and all other	
1959	98,266	167,702	70,690[a]		336,658[b]
1960	85,792	151,656	67,961[a]		305,409[b]
1961	80,616	153,593	85,704[a]		319,913[b]
1962	90,230	213,037	91,644[a]		394,911[b]
1963	109,696	270,384	111,685[a]		494,765[b]
1964	130,866	292,713	111,109[a]		534,688[b]
1965	136,624	321,444	128,924[a]		586,992[b]
1966	94,878	207,356	90,641[a]		392,875[b]
1967	107,003	319,044	41,728	86,821	554,596
1968	115,835	345,650	46,189	85,213	592,886
1969	113,206	337,682	60,902	80,226	592,016
1970	97,045	362,068	104,978	83,050	647,140
1971	198,218	689,750	137,024	201,379	1,226,371
1972	232,521	825,513	175,907	240,319	1,474,260
1973	281,041	824,915	142,900	170,910	1,419,766
1974	166,197	681,288	129,048	161,327	1,137,860
1975	174,355	924,529	127,557	200,978	1,427,418
1976	257,075	1,381,946	145,396	269,399	2,053,816
1977	360,000	1,956,000	148,000	357,000	2,820,000
1978	442,000	2,311,000	128,000	356,000	3,238,000

SOURCE: Federal Home Loan Bank Board, Savings and Home Financing Source Book, 1959 through 1978 (Washington, D.C.: annually), Table 15 (1978).

a. Amount represents total of "other purposes" category.

b. VA loans included in total.

TABLE XXII-12. NUMBER OF INSURED SAVINGS AND LOAN ASSOCIATIONS OPERATING IN AND OFFICES LOCATED IN MICHIGAN, BY COUNTY: 30 SEPTEMBER 1979

County	Associations	Offices	County	Associations	Offices
Alcona	0	0	Lake	0	0
Alger	0	0	Lapeer	3	4
Allegan	5	6	Leelanau	0	0
Alpena	2	3	Lenawee	2	7
Antrim	0	0	Livingston	2	6
Arenac	1	1	Luce	0	0
Baraga	0	0	Mackinac	0	0
Barry	4	4	Macomb	11	41
Bay	3	10	Manistee	1	1
Benzie	0	0	Marquette	1	2
Berrien	6	23	Mason	2	2
Branch	2	4	Mecosta	1	1
Calhoun	5	14	Menominee	1	1
Cass	3	4	Midland	3	6
Charlevoix	1	1	Missaukee	0	0
Cheboygan	1	1	Monroe	3	9
Chippewa	1	1	Montcalm	1	1
Clare	1	1	Montmorency	0	0
Clinton	1	2	Muskegon	4	7
Crawford	1	1	Newaygo	1	1
Delta	1	1	Oakland	12	72
Dickinson	1	1	Oceana	1	1
Eaton	6	8	Ogemaw	1	1
Emmet	2	2	Ontonagon	0	0
Genesee	4	17	Osceola	1	1
Gladwin	1	1	Oscoda	0	0
Gogebic	0	0	Otsego	1	1
Grand Traverse	2	3	Ottawa	7	12
Gratiot	2	3	Presque Isle	1	1
Hillsdale	2	2	Roscommon	1	1
Houghton	1	1	Saginaw	6	22
Huron	2	3	St. Clair	2	8
Ingham	4	16	St. Joseph	4	7
Ionia	3	4	Sanilac	2	2
Iosco	2	2	Schoolcraft	0	0
Iron	1	1	Shiawassee	2	5
Isabella	2	2	Tuscola	3	3
Jackson	3	7	Van Buren	6	7
Kalamazoo	6	22	Washtenaw	4	18
Kalkaska	1	1	Wayne	16	112
Kent	7	26	Wexford	1	1
Keweenaw	0	0			

SOURCE: Federal Home Loan Bank Board, FSLIC Savings and Loan Associations, September 30, 1979, Summary of Savings Accounts by Geographic Area (Washington, D.C.: 1980), Table 5.

TABLE XXII-13. STATE AND FEDERALLY CHARTERED CREDIT UNIONS IN MICHIGAN: 31 DECEMBER 1962-1978

Year	Number	Membership	Loans to members (In thousand of dollars)	Assets
		State		
1962	782	569,244	283,280	349,209
1963	781	628,346	323,693	404,687
1964	782	708,587	380,551	484,197
1965	790	772,298	445,437	561,467
1966	815	865,958	448,359	650,104
1967	814	941,305	592,196	746,410
1968	818	1,030,784	694,117	858,573
1969	810	1,112,939	777,181	973,330
1970	787	1,175,788	814,870	1,096,997
1971	754	1,199,578	837,039	1,248,321
1972	724	1,249,293	913,465	1,402,713
1973	706	1,303,827	1,014,893	1,501,612
1974	679	1,309,000	1,059,746	1,603,246
1975	656	1,374,000	1,179,342	1,820,193
1976	630	1,417,587	1,338,991	1,910,592
1977	611	1,501,371	1,650,475	2,297,283
1978	598	1,591,312	1,899,179	2,600,450
		Federal		
1962	406	464,996	210,471	272,524
1963	406	498,141	237,275	304,391
1964	408	529,832	269,211	346,619
1965	399	558,397	312,176	392,328
1966	379	566,314	323,120	403,258
1967	368	567,350	329,368	417,566
1968	366	581,189	366,425	447,004
1969	371	610,448	408,478	483,522
1970	372	631,940	415,800	507,796
1971	364	654,871	461,374	567,274
1972	368	690,887	520,926	644,033
1973	363	737,751	591,280	724,900
1974	365	779,534	632,718	784,452
1975	367	809,200	710,035	877,520
1976	358	874,040	861,099	1,018,098
1977	352	962,801	1,045,652	1,193,701
1978	350	1,099,838	1,216,740	1,371,054

SOURCE: National Credit Union Administration, Annual Report, 1960 through 1978 (Washington, D.C.: annually), Tables 1 and 17 (1978); Michigan Department of Commerce, Financial Institutions Bureau, Abstracts of Reports of Credit Unions, 1960 through 1976; and Michigan Department of Commerce, Financial Institutions Bureau, Annual Report, 1978 (Lansing: annually), pp. 52, 54 (1978).

TABLE XXII-14. NUMBER, LOANS OUTSTANDING, AND AVERAGE INVESTED ASSETS OF MICHIGAN SMALL LOAN COMPANIES: 1960-1978

Year	Number of licensees	Loans outstanding 31 December[a]	Average invested assets[a]
1960	548	177,036	187,369
1961	584	177,369	188,741
1962	603	181,240	186,000
1963	608	248,081	205,070
1964	634	281,583	271,983
1965	655	304,700	301,897
1966	675	323,872	323,615
1967	677	334,674	338,073
1968	691	345,413	347,609
1969	676	357,969	362,409
1970	626	346,625	365,306
1971	595	332,115	381,379
1972	597	395,160	397,046
1973	593	412,348	433,592
1974	550	391,783	445,643
1975	461	349,687	406,339
1976	415	326,921	356,701
1977	387	332,526	351,956
1978	375	341,166	358,333

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Analysis and Recapitulation of Reports of Regulatory Loan Licensees, 1974 and 1978 (Lansing: annually), p. 5 (1978).

a. In thousands of dollars.

TABLE XXII-15. ASSETS AND LIABILITIES OF MICHIGAN SMALL LOAN COMPANIES: 31 DECEMBER 1976-1978

(In thousands of dollars)

Assets	1976	1977	1978
Cash on hand and in bank	1,633	1,922	1,860
Loans receivable (net of reserve for bad debts)	326,921	332,526	341,166
Real estate (less depreciation)	404	326	327
Furniture, fixtures, and equipment (less depreciation)	1,610	1,501	1,441
Deferred charges and prepaid expense	492	537	610
Other assets	2,895	2,051	1,753
Total assets used in the regulatory loan business	333,955	338,863	347,157
Other assets not used in the regulatory loan business	57,073	69,556	87,928
TOTAL ASSETS	391,028	408,419	435,085
Liabilities			
Accounts and notes payable:			
Bank	8,791	10,075	8,738
Due to parent company of affiliate	206,969	221,372	244,375
Other short-term notes and accounts	22,978	20,660	21,590
Bonds and long-term notes	9,551	11,270	11,244
Other liabilities:			
Accrued expenses	464	906	486
Dealer reserves	1,864	2,031	1,864
Other	318	484	462
Expense reserves:			
Reserves for license and taxes	533	514	445
Other expense reserves	692	415	408
Reserve for bad debts	9,753	9,788	9,557
Branch office capital	97,673	81,433	106,913
Net worth	978	924	861
Capital stock:			
Preferred	888	762	833
Common	6,303	5,821	5,328
Appropriated surplus or capital reserves	8,184	8,317	8,813
Earned surplus (including undivided profits)	15,154	33,647	13,168
TOTAL LIABILITIES AND CAPITAL	391,028	408,419	435,035

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Analysis and Recapitulation of Reports of Regulatory Loan Licensees, (Lansing: 1976), p. 3; and Michigan Department of Commerce, Financial Institutions Bureau, Annual Report, 1978 (Lansing: annually), p. 85.

TABLE XXII-16. LIFE INSURANCE IN FORCE IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1964-1978

(In millions of dollars)

Year	Ordinary	Group	Industrial	Credit	Total
			Michigan		
1964	17,883	15,883	1,444	2,632	37,842
1965	19,645	19,117	1,448	3,247	43,457
1966	21,477	21,332	1,422	3,593	47,824
1967	23,202	23,180	1,381	3,639	51,402
1968	25,177	25,895	1,377	4,060	56,509
1969	27,097	27,936	1,353	4,415	60,801
1970	28,846	31,076	1,321	4,510	65,753
1971	31,012	34,615	1,340	5,131	72,098
1972	33,314	37,602	1,340	5,847	78,103
1973	35,867	43,569	1,318	5,460	86,214
1974	38,188	49,309	1,287	5,306	94,090
1975	40,093	55,184	1,265	5,494	102,036
1976	43,323	61,538	1,218	5,765	111,844
1977	46,995	67,763	1,187	6,031	121,976
1978	51,528	77,264	1,170	7,375	137,337
			United States		
1964	457,868	253,620	39,833	46,487	797,808
1965	499,638	308,078	39,818	53,020	900,554
1966	541,022	345,945	39,663	58,059	984,689
1967	584,570	394,501	39,215	61,535	1,079,821
1968	633,392	442,778	38,827	68,357	1,183,354
1969	682,453	488,864	38,614	74,598	1,284,529
1970	734,730	551,357	38,644	77,392	1,402,123
1971	792,318	589,883	39,202	81,931	1,503,334
1972	853,911	640,689	39,975	93,410	1,627,985
1973	928,192	708,322	40,632	101,154	1,778,300
1974	1,009,038	827,018	39,441	109,623	1,985,120
1975	1,083,421	904,695	39,423	112,032	2,139,571
1976	1,177,672	1,002,647	39,175	123,569	2,343,063
1977	1,289,321	1,115,047	39,045	139,402	2,582,815
1978	1,425,095	1,243,994	38,080	163,081	2,870,250

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1964 through 1978 (New York, N.Y.: annually).

TABLE XXII-18. ASSETS, CAPITAL, AND SURPLUS OF MICHIGAN INSURANCE COMPANIES: 31 DECEMBER 1977

Type of company	1977 Number of companies	1977 Admitted assets ($000)	1977 Capital surplus ($000)	1978 Number of companies	1978 Admitted assets ($000)	1978 Capital surplus ($000)
Property & liability ins.						
Stock	18	989,006	314,660	19	1,256,330	404,345
Mutual	29	1,171,889	289,204	28	1,452,060	375,490
Reciprocal exchanges	1	457,006	86,094	1	571,607	138,095
Farm mutuals	9	3,709	579	6	1,720	0
Life insurance						
Stock	21	932,941	142,138	20	1,278,334	180,653
Mutual	4	302,720	14,887	4	358,718	16,367
Fraternal benefit societies	3	120,515	20,374	3	126,460	23,183
Nonprofit medical, hospital, and dental organizations, and associations	4	749,494	196,256	4	929,135	290,084

SOURCE: Michigan Department of Commerce, Insurance Bureau, Annual Statistical Report.

TABLE XXII-19. SUMMARY OF MICHIGAN PREMIUMS AND LOSSES OF COMPANIES AND SOCIETIES OPERATING IN MICHIGAN: 1978

(Thousands of dollars)

Type of company	Total direct Michigan premiums[a]	Total direct Michigan losses[b]
Property and liability insurance companies		
Funds and pools, Michigan	100,497	85,834
Stock companies, Michigan	386,914	226,453
Stock companies, foreign	1,815,343	1,078,719
Mutual companies, Michigan	521,984	293,669
Mutual companies, foreign	552,644	326,040
Alien companies-U.S. business	14,322	7,788
Reciprocal exchanges, Michigan	351,893	305,985
Reciprocal exchanges, foreign	55,331	29,932
Farm mutuals, Michigan	304	143
TOTAL[c]	3,798,728	2,354,420
Life insurance companies		
Stock companies		
Life insurance operation, Michigan	136,691	50,019
Life insurance operation, foreign	460,478	248,755
Casualty operations, Michigan	87,476	49,856
Casualty operations, foreign	509,804	392,936
Mutual companies		
Life insurance operations, Michigan	41,258	13,109
Life insurance operations, foreign	894,652	602,394
Casualty operations, Michigan	52,535	47,848
Casualty operations, foreign	541,826	442,752
Alien companies-U.S. business		
Life insurance operations	88,740	49,439
Casualty operations	36,300	30,034
Societies		
Life insurance operations, Michigan	3,423	1,011
Life insurance operations, foreign	35,311	8,445
Casualty operations, Michigan	39	16
Casualty operations, foreign	2,440	1,478
Michigan-medical, hospital, and dental organizations and associations		
Life insurance operations	36	24
Casualty (excluding Blue Cross)	50,510	38,340
Blue Cross-Blue Shield of Michigan	2,306,190	2,136,297
TOTAL LIFE INSURANCE OPERATIONS	1,660,589	960,740
TOTAL CASUALTY OPERATIONS	3,584,641	3,138,063

SOURCE: Michigan Department of Commerce, Insurance Bureau, Annual Statistical Report 1977 (Lansing: 1978), Table I, II, III, and IV.

a. Casualty premiums are premiums earned.
b. Property, liability, and casualty losses are losses incurred. Life losses are losses paid.
c. Total does not include farm mutuals.

TABLE XXII-20. RESIDENTIAL AND NONRESIDENTIAL MORTGAGES OWNED BY U.S. LIFE INSURANCE COMPANIES IN MICHIGAN AND THE UNITED STATES: 30 DECEMBER 1965-1977

(in thousands of dollars)

Year	Farm	Nonfarm F.H.A.	Nonfarm V.A.	Nonfarm conventional	Total
			Michigan		
1965	39,891	474,470	183,324	1,253,548	1,951,233
1966	42,566	463,379	167,526	1,399,205	2,072,676
1967	45,500	439,500	154,100	1,493,200	2,132,300
1968	43,200	436,900	144,000	1,541,700	2,165,800
1969	38,200	427,200	131,500	1,605,200	2,202,100
1970	36,600	407,000	119,700	1,696,800	2,260,100
1971	35,200	369,400	106,700	1,747,200	2,258,500
1972	33,400	331,900	95,600	1,815,500	2,276,400
1973	31,400	298,300	82,900	1,904,000	2,316,600
1974	30,800	227,100	74,600	2,040,700	2,423,200
1975	34,800	254,100	66,500	2,096,900	2,452,300
1976	49,400	228,500	59,500	2,146,800	2,484,200
1977	50,400	204,700	52,000	2,461,300	2,768,400
			United States		
1965	4,823	12,538	6,286	36,366	60,013
1966	5,240	12,852	6,201	40,316	64,609
1967	5,569	12,672	6,122	43,153	67,516
1968	5,801	12,469	5,954	45,749	69,973
1969	5,773	12,271	5,701	48,282	72,027
1970	5,649	12,001	5,394	51,331	74,375
1971	5,601	11,336	5,004	53,555	75,496
1972	5,678	10,512	4,660	56,098	76,948
1973	5,996	9,740	4,402	61,231	81,369
1974	6,327	9,115	4,178	66,614	86,234
1975	6,753	8,502	3,903	70,009	89,167
1976	7,425	7,838	3,603	72,686	91,552
1977	8,842	7,182	3,348	77,476	96,848

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1965 through 1979 (New York: annually), (1977 data).

TABLE XXII-17. PAYMENTS TO LIFE INSURANCE BENEFICIARIES IN MICHIGAN AND THE UNITED STATES: 1968-1978

Year	Ordinary		Group		Industrial		Total	
	Number (000)	Amount ($000)	Number (000)	Amount ($000)	Number (000)	Amount ($000)	Number (000)	Amount ($000)
				Michigan				
1968	35.8	116,400	39.2	158,500	29.6	14,100	104.6	289,000
1969	37.4	13[illegible]100	41.5	182,900	29.5	14,800	108.4	327,800
1970	38.0	13[illegible]000	40.0	185,500	28.8	15,000	106.8	330,500
1971	37.5	129,800	42.0	210,900	30.0	15,500	109.5	356,200
1972	40.3	143,800	46.6	224,200	28.9	15,600	115.8	383,600
1973	41.5	154,800	51.2	233,900	28.8	16,100	121.5	404,800
1974	41.3	158,800	52.9	250,200	27.0	15,600	121.2	424,600
1975	42.0	162,100	51.5	254,600	27.1	15,600	120.6	432,300
1976	41.7	165,900	50.1	265,000	26.1	15,500	117.9	446,400
1977	43.8	179,100	49.2	307,100	28.6	17,100	121.6	503,300
1978	43.1	190,600	50.2	324,700	26.6	16,600	119.9	531,900
				United States				
1968	930	3,210,000	746	2,578,100	1,039	421,200	2,715	6,209,300
1969	955	3,424,100	769	2,897,600	1,025	436,400	2,749	6,758,100
1970	960	3,545,600	767	3,026,700	1,014	445,000	2,741	7,017,300
1971	987	3,699,400	761	3,267,400	1,017	456,500	2,765	7,423,300
1972	1,036	4,003,700	810	3,536,700	1,040	466,600	2,886	8,007,000
1973	1,112	4,289,400	884	3,805,900	1,018	476,700	3,014	8,572,000
1974	1,097	4,382,000	938	4,031,200	974	471,900	3,009	8,885,100
1975	1,098	4,473,600	906	4,256,000	922	462,500	2,926	9,192,100
1976	1,110	4,665,400	882	4,452,900	933	475,000	2,925	9,593,300
1977	1,098	4,907,500	860	4,812,900	910	475,300	2,869	10,195,700
1978	1,141	5,338,000	892	5,281,900	927	487,800	2,961	11,107,700

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1968 through 1978 (New York, N.Y.: annually).

TABLE XXII-21. SALES OF SERIES E AND H SAVINGS BONDS IN MICHIGAN AND THE UNITED STATES: FISCAL YEARS 1954-1978

(In thousands of dollars)

Fiscal year	Sales		Fiscal year	Sales	
	United States	Michigan		United States	Michigan
1954	4,652,875	278,602	1967	4,965,355	297,164
1955	5,224,513	312,276	1968	4,738,866	283,164
1956	5,259,886	327,443	1969	4,549,746	282,256
1957	4,612,994	278,650	1970	4,449,211	240,185
1958	4,670,138	282,662	1971	5,081,896	289,948
1959	4,505,960	242,108	1972	5,939,037	455,433
1960	4,307,048	250,600	1973	6,513,577	452,513
1961	4,463,728	254,890	1974	6,428,766	446,422
1962	4,421,490	238,795	1975	6,826,464	410,311
1963	4,518,035	242,017	1976	7,293,244	432,382
1964	4,656,422	259,724	1977	7,894,697	536,314
1965	3,534,018	276,808	1978	8,026,105	585,559
1966	4,650,078	300,249			

SOURCE: U.S. Department of the Treasury, Annual Report, 1953 through 1967 (Washington, D.C.: annually), and Statistical Appendix to Annual Report, 1968 through 1979 (Washington, D.C.: annually).

TABLE XXII-22. NUMBER OF STOCKBROKER AND SECURITIES DEALER FIRMS IN MICHIGAN AND THE UNITED STATES: 30 SEPTEMBER 1940-1978

Year	Sole proprietorships	Partnerships	Corporations[a]	Total Michigan	Total U.S.
1940	22	26	49	97	6,545
1945	11	20	28	59	4,099
1950	8	24	30	62	3,959
1955	9	17	26	52	4,260
1960	10	19	33	62	5,239
1961	9	17	36	62	5,446
1962	10	17	34	61	5,764
1963	9	13	37	59	5,423
1964	10	13	35	58	4,820
1965	12	14	38	64	4,494
1966	11	12	43	66	4,313
1967	11	14	44	69	4,128
1968	16	10	46	72	4,355
1969	15	10	49	74	4,755
1970	17	9	55	81	5,187
1971	9	6	56	71	4,901
1972	8	5	54	67	4,968
1973	8	4	54	66	4,373
1974	8	3	52	63	3,982
1975	8	4	44	56	3,546
1976	5	5	46	56	5,380
1977	6	5	49	60	5,725
1978	6	4	45	55	6,025

SOURCE: Securities and Exchange Commission, Annual Report, 1940 through 1978 (Washington, D.C.: annually), Part 9, Table 4 (1978).
a. Includes all forms of organizations other than sole proprietorships and partnerships.

TABLE XXII-23. NUMBER OF SHAREOWNERS OF PUBLIC CORPORATIONS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1956-1975

(In thousands of persons)

Year	Michigan	United States
1956	370	8,604
1959	625	12,391
1962	794	16,867
1965	946	19,963
1970	1,403	30,612
1975	1,517	25,270

SOURCE: New York Stock Exchange, Fact Book, 1978 (New York, N.Y.: 1979), p. 51.

TABLE XXII-24. NUMBER OF LICENSES ISSUED FOR REAL ESTATE BROKERS, OFFICES, AND SALESMEN IN MICHIGAN, BY COUNTY: 21 SEPTEMBER 1979

County	Broker	Associate broker	Branch office	Salesmen	Total
Alcona	16	6	4	109	135
Alger	6	2	1	21	30
Allegan	56	32	12	338	438
Alpena	47	32	5	328	412
Antrim	47	27	19	225	318
Arenac	18	5	13	105	141
Baraga	4	0	1	25	30
Barry	29	20	11	210	270
Bay	117	68	13	848	1,046
Benzie	18	7	4	88	117
Berrien	197	99	24	965	1,285
Branch	52	33	9	285	379
Calhoun	160	90	7	725	982
Cass	60	16	10	185	271
Charlevoix	40	33	14	230	317
Cheboygan	37	11	7	169	224
Chippewa	34	10	4	144	192
Clare	52	27	9	256	344
Clinton	29	28	3	289	349
Crawford	23	28	6	100	157
Delta	31	16	3	151	201
Dickinson	13	13	1	74	101
Eaton	90	71	6	542	709
Emmet	66	51	11	241	369
Genesee	574	275	32	3,238	4,119
Gladwin	25	12	8	128	173
Gogebic	12	5	4	21	41
Grand Traverse	132	124	11	704	971
Gratiot	40	24	5	188	257
Hillsdale	37	22	8	290	357
Houghton	21	7	1	35	64
Huron	23	13	12	170	218
Ingham	503	364	31	2,318	3,216
Ionia	31	24	5	262	322
Iosco	54	27	7	322	410
Iron	12	7	1	65	85
Isabella	32	27	7	265	331
Jackson	177	89	6	715	987
Kalamazoo	285	130	16	1,255	1,686
Kalkaska	21	8	5	112	146
Kent	502	251	56	2,742	3,551
Keweenaw	0	0	0	1	1
Lake	15	8	6	52	81
Lapeer	70	51	11	708	840

TABLE XXII-24. NUMBER OF LICENSES ISSUED FOR REAL ESTATE BROKERS, OFFICES, AND SALESMEN IN MICHIGAN, BY COUNTY: 21 SEPTEMBER 1979 (cont.)

County	Broker	Associate broker	Branch office	Salesmen	Total
Leelanau	25	17	6	155	203
Lenawee	112	57	15	672	856
Livingston	142	132	32	1,103	1,409
Luce	8	5	1	29	43
Mackinac	20	6	4	66	96
Macomb	760	466	83	5,949	7,258
Manistee	25	23	8	124	180
Marquette	64	57	2	310	433
Mason	22	24	3	165	214
Mecosta	37	28	17	181	263
Menominee	14	10	2	85	111
Midland	81	41	5	447	574
Missaukee	11	12	4	67	94
Monroe	134	40	13	759	946
Montcalm	48	25	14	320	407
Montmorency	23	16	5	118	162
Muskegon	171	51	8	685	915
Newaygo	27	10	7	178	222
Oakland	2,439	1,713	167	11,140	15,459
Oceana	21	14	3	131	169
Ogemaw	26	6	12	142	186
Ontonagon	3	2	1	19	25
Osceola	26	18	7	94	145
Oscoda	9	3	6	61	79
Otsego	38	29	4	206	277
Ottawa	135	87	13	812	1,047
Presque Isle	19	7	4	98	128
Roscommon	56	28	11	268	363
Saginaw	310	153	16	1,550	2,029
Sanilac	47	25	13	316	401
Schoolcraft	12	4	0	27	43
Shiawassee	53	34	6	445	538
St. Clair	173	100	21	968	1,262
St. Joseph	59	37	7	374	477
Tuscola	44	27	16	403	490
Van Buren	53	31	10	326	420
Washtenaw	318	220	23	1,576	2,137
Wayne	2,149	825	143	12,149	15,266
Wexford	40	20	7	164	231
Out of State	201	154	0	1,382	1,737
Foreign	1	1	0	4	6
TOTAL	11,764	6,751	1,148	64,311	83,974

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXII-25. NUMBER OF LICENSES ISSUED FOR PUBLIC ACCOUNTANCY IN MICHIGAN, BY COUNTY: 10 October 1979

County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices	County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices
Alcona	1	--	--	--	Gladwin	4	--	--	--
Alger	--	--	--	1	Gogebic	9	4	2	--
Allegan	9	2	--	3	Grand Traverse	58	17	10	6
Alpena	16	2	4	--	Gratiot	12	7	1	2
Antrim	3	1	1	--	Hillsdale	10	2	1	1
Arenac	1	--	--	1	Houghton	10	5	2	--
Baraga	--	--	--	--	Huron	21	1	3	1
Barry	4	3	--	--	Ingham	188	75	14	6
Bay	60	5	7	1	Ionia	6	4	1	1
Benzie	1	1	--	1	Iosco	8	--	2	2
Berrien	74	19	9	1	Iron	1	1	--	--
Branch	12	5	--	1	Isabella	14	4	1	2
Calhoun	52	11	4	5	Jackson	84	13	10	2
Cass	4	3	--	1	Kalamazoo	136	58	9	5
Charlevoix	3	2	1	2	Kalkaska	1	--	--	1
Cheboygan	5	--	--	1	Kent	363	157	20	10
Chippewa	7	1	4	--	Keweenaw	--	--	--	--
Clare	2	--	--	--	Lake	1	--	--	--
Clinton	15	6	--	1	Lapeer	14	9	2	1
Crawford	5	--	2	--	Leelanau	4	3	--	--
Delta	14	1	2	1	Lenawee	19	6	3	--
Dickinson	14	2	2	--	Livingston	19	10	--	4
Eaton	15	9	1	1	Luce	1	--	--	1
Emmet	17	6	3	--	Mackinac	1	1	--	--
Genesee	101	31	22	5	Macomb	309	84	40	5

TABLE XXII-25. NUMBER OF LICENSES ISSUED FOR PUBLIC ACCOUNTANCY IN MICHIGAN, BY COUNTY: 10 October 1979 (cont.)

County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices	County	Registered and licensed CPAs	Registered accountants	Firms	Branch offices
Manistee	2	--	--	1	Presque Isle	1	--	--	--
Marquette	41	8	4	3	Roscommon	1	--	--	1
Mason	2	--	--	2	Saginaw	97	26	10	7
Mecosta	6	2	1	1	Sanilac	4	1	1	2
Menominee	3	--	1	1	Schoolcraft	1	--	--	1
Midland	20	11	2	2	Shiawassee	16	5	3	1
Missaukee	1	1	--	--	St. Clair	37	11	6	4
Monroe	19	5	4	1	St. Joseph	14	4	1	1
Montcalm	4	2	--	2	Tuscola	8	--	--	3
Montmorency	2	--	--	1	Van Buren	6	7	--	--
Muskegon	52	18	5	1	Washtenaw	137	46	11	7
Newaygo	3	4	--	--	Wayne	1,016	537	77	5
Oakland	1,528	439	225	7	Wexford	15	4	2	--
Oceana	4	1	1	--	Outstate	333	959	--	--
Ogemaw	3	--	1	1	Foreign	4	32	--	--
Ontonagon	--	1	--	--					
Osceola	2	2	1	--					
Oscoda	1	--	--	1					
Otsego	5	3	--	1	TOTAL	5,193	2,735	539	135
Ottawa	77	32	3	2					

SOURCE: Michigan Department of Licensing and Regulation, special release.

XXIII. SELECTED SERVICES

The first postwar business census covered the year 1948. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at five-year intervals covering years ending in 2 and 7. These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in furnishing lodging, or lodging and meals, and camping space or camping facilities, on a fee basis; providing services generally involved in the care of the person or apparel, such as laundries, dry cleaning plants, portrait photographic studios, and beauty and barber shops; rendering services to business establishments on a fee or contract basis; furnishing automotive repair, leasing, and parking and other repair services to the general public; producing, distributing, or exhibiting motion pictures in commercially operated theaters; providing other amusement or entertainment on payment of a fee or admission charge; making dentures and artificial teeth to order for the dental profession; offering legal advice or legal services (providing that the head of the organization or office is a member of the bar); or rendering engineering, architectural, and surveying services were classified in the Census of Selected Service Industries, 1977. The tabulations exclude such establishments that are part of a military post, school, university, and so forth. Many service establishments, such as hospitals, physicians' offices, and educational institutions, are not covered in the Census of Selected Service Industries.

Beginning in 1954, the Census of Selected Service Industries has excluded firms with no paid employees during the census year unless they reported sales of $1,000 or more. Firms with no paid employees were not actually canvassed, their sales figures and kind-of-business classification being obtained from 1972 income tax returns.

Several changes were made in the kind-of-business definitions between 1967 and 1972 with the result that comparability between the two censuses is limited. The kinds of business involving the most significant changes are those in the new computer and data processing services category. In Table XXIII-1 the 1972 Census of Selected Services Industries aggregates for the state are reported on the basis of the 1967 classification as well as that now current. The 1977 data are based on 1972 kind-of-business definitions only. A complete listing of the kinds of business included during 1972 and 1977 is presented in Table XXIII-6.

It is customary in an economic census to classify each establishment separately, irrespective of whether it is part of a larger organization.

Receipts reported in the Census of Selected Service Industries do not include receipts incidental to other kinds of business, such as wholesaling or services. They do include total receipts, including accruals, of selected service establishments even though some of these receipts were from selling merchandise, carrying charges, delivering merchandise, and so forth. Trade-in allowances are not deducted, but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental or real estate,

interest or dividends on investments, and so forth) is not. Receipts include receipts so defined of all establishments with a sales volume of $1,000 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. The census also includes establishments in operation less than the full year, with reported sales of less than $1,000, if they could have expected reaching the $1,000 cutoff on the basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employee income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

A new chapter dealing with travel is included in this edition of the Abstract. Several tables in chapter XXVI describe the importance of the lodgings industry in Michigan and its counties.

The Michigan Department of Licensing and Regulations provides statistics on the number of establishments licensed to do business as barber shops, beauty shops, and funeral parlors, and on the number of people licensed to practice cosmetology, barbering, and mortuary science.

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TABLE XXIII-1. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN: 1947, 1954, 1958, 1963, 1967, 1972, AND 1977

	Establishments with payroll				All establishments[a]	
Year	Number	Receipts ($1,000,000)	Annual payroll ($1,000,000)	Paid employees[b]	Number	Receipts ($1,000,000)
1947[c]	n.a.	n.a.	130	48,315	21,376	367
1954	15,127	935	267	76,449	29,699	1,016
1958	17,653	1,256	338	93,279	38,521	1,380
1963	20,188	1,642	424	114,614	44,412	1,793
1967	19,654	2,214	647	139,436	43,214	2,397
1972[d]	20,846	3,223	939	162,205	48,727	3,504
1972[e]	24,718	3,446	1,222	186,018	56,080	3,784
1977[e]	24,921	5,882	2,059	218,851	60,550	6,389

SOURCE Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 1 and 2; Bureau of the Census, U.S. Census of Selected Service Industries, 1972, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Tables 1 and 6; and Bureau of the Census, U.S. Census of Business, 1967, Selected Services, Michigan (Washington, D.C.: 1969), BC67-SA-24, Table 2, and similar census documents for 1963 (BC63-SA24, Table 2), 1958 (BC58-SA22, Table 101), 1954 (vol. 6, part 1, Michigan section, Table 101), and 1948 (vol. 7, Michigan section, Table 1).

a. Excludes establishments with no paid employment and with annual receipts less than $1,000.

b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.

c. Unrevised statistics. Based upon reports from establishments with receipts of $500 or more.

d. Based on 1967 Standard Industrial Classification. Excludes dental laboratories, legal services, and architectural, engineering, and land surveying services which are included in the Census of Selected Service Industries, 1972.

e. Based on 1972 Standard Industrial Classification. Includes dental laboratories, legal services, and architectural, engineering, and land surveying services which were excluded in the Census of Business, 1967, Selected Services.

n.a.: not available.

TABLE XXIII-2. RANKING OF STATES ACCORDING TO PER CAPITA RECEIPTS BY SELECTED SERVICE ESTABLISHMENTS: 1977

State	1972	1977	State	1972	1977
Nevada	2738.48	4874.70	Georgia	447.77	685.18
District of Columbia	1635.72	2688.94	Idaho	376.82	664.66
Hawaii	830.13	1432.28	Ohio	430.32	660.06
Alaska	539.05	1244.17	Utah	408.03	660.03
California	728.09	1216.11	New Hampshire	431.86	643.50
New York	988.80	1189.32	Tennessee	407.56	635.87
Florida	697.63	1009.85	Nebraska	391.56	627.84
Colorado	577.31	945.14	Vermont	426.37	620.33
Illinois	666.16	941.15	Oklahoma	375.36	589.59
Wyoming	471.33	919.74	Montana	328.47	586.15
Texas	488.44	890.52	Rhode Island	367.90	570.38
New Mexico	703.28	885.20	Wisconsin	350.33	555.35
Massachusetts	568.11	869.89	Kansas	330.95	543.76
New Jersey	558.07	850.77	Iowa	323.97	540.32
Maryland	556.65	811.67	Indiana	320.04	516.93
Washington	442.24	810.57	North Carolina	327.21	499.01
Arizona	558.13	803.75	South Carolina	300.44	493.49
Missouri	518.43	777.22	North Dakota	258.92	490.56
Connecticut	476.73	759.20	Maine	304.35	486.28
Louisiana	397.13	748.35	Kentucky	288.19	460.42
Oregon	450.43	734.55	Alabama	318.67	459.44
Pennsylvania	445.71	712.64	South Dakota	282.03	448.71
Virginia	407.70	709.18	West Virginia	268.54	444.81
Delaware	472.56	699.92	Arkansas	289.68	428.49
Minnesota	448.08	699.83	Mississippi	236.40	371.99
Michigan	471.49	698.39	United States	542.52	829.62

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: U.S. Government Printing Office, 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-3. RANKING OF STATES ACCORDING TO RECEIPTS BY SELECTED SERVICE ESTABLISHMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Nevada	52.91	59.35	Pennsylvania	10.01	10.18
District of Columbia	29.61	30.00	Minnesota	10.28	9.87
Hawaii	16.62	18.91	New Hampshire	10.28	9.72
New York	19.09	15.95	Montana	8.17	9.62
California	14.51	15.20	Connecticut	8.91	9.42
New Mexico	19.55	15.09	Nebraska	8.96	9.41
Florida	15.64	15.01	Ohio	9.53	9.29
Colorado	12.70	13.13	Oklahoma	9.78	9.20
Texas	12.05	12.92	Michigan	9.80	9.20
Louisiana	11.37	12.50	Delaware	9.28	9.15
Arizona	12.90	12.46	South Carolina	8.52	8.73
Wyoming	10.80	12.15	Maine	8.36	8.49
Massachusetts	11.77	12.07	Rhode Island	8.33	8.47
Alaska	10.35	11.91	North Carolina	8.61	8.42
Missouri	12.38	11.84	North Dakota	6.11	8.33
Illinois	13.12	11.70	Wisconsin	8.20	8.20
Georgia	11.35	11.31	Alabama	9.27	8.11
Utah	10.94	11.20	Iowa	7.67	7.86
Tennessee	11.02	10.82	Arkansas	8.75	7.83
New Jersey	10.49	10.74	Kentucky	8.00	7.73
Idaho	9.71	10.72	Kansas	7.40	7.72
Washington	9.77	10.72	South Dakota	7.32	7.68
Vermont	10.91	10.66	Indiana	7.42	7.48
Maryland	11.27	10.65	West Virginia	7.43	7.41
Virginia	9.32	10.24	Mississippi	7.63	7.40
Oregon	10.37	10.18	United States	12.08	11.78

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: U.S. Government Printing Office, 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington,D.C.: U.S. Government Printing Office, 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-4. RANKING OF STATES ACCORDING TO NUMBER OF INHABITANTS PER SELECTED SERVICE ESTABLISHMENT: 1977

State	1972	1977	State	1972	1977
Alabama	172	169	New York	123	114
Mississippi	168	164	Arizona	120	112
West Virginia	180	162	Utah	124	111
Michigan	161	151	Hawaii	130	111
South Carolina	156	147	Missouri	124	111
Kentucky	165	144	Massachusetts	125	110
Louisiana	148	143	Oklahoma	107	110
Ohio	145	139	Kansas	114	108
Virginia	175	139	South Dakota	118	107
Georgia	146	137	Washington	122	107
North Carolina	153	134	Idaho	111	106
Delaware	145	134	Iowa	120	106
Tennessee	149	133	Nebraska	114	105
Arkansas	134	131	Maine	128	104
Wisconsin	148	131	Florida	107	104
Pennsylvania	140	130	Oregon	115	103
Indiana	150	129	New Hampshire	116	96
Maryland	147	126	Montana	106	95
Rhode Island	147	125	Alaska	116	95
New Mexico	130	124	Vermont	113	95
New Jersey	149	122	California	112	93
North Dakota	140	121	Colorado	99	87
Connecticut	137	118	Wyoming	89	84
Minnesota	133	116	Nevada	82	80
Illinois	129	116	District of Columbia	87	79
Texas	118	115	United States	131	118

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: U.S. Government Printing Office, 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

XXIII-5. RANKING OF STATES ACCORDING TO RECEIPTS PER SELECTED SERVICE ESTABLISHMENT: 1977

State	1972	1977	State	1972	1977
Nevada	225,397.69	389,120.68	Minnesota	59,417.87	81,523.47
District of Columbia	142,527.95	213,284.39	Alabama	54,946.61	77,511.20
Hawaii	107,624.61	159,063.07	Wyoming	41,876.90	77,343.62
New York	121,540.21	136,010.86	Oregon	51,830.77	75,945.60
Alaska	62,738.66	118,070.54	Utah	50,604.07	73,588.18
California	81,252.34	113,647.52	Wisconsin	51,913.68	72,782.28
New Mexico	91,130.18	109,482.52	South Carolina	46,914.03	72,341.26
Illinois	86,203.30	109,005.15	West Virginia	48,441.30	72,193.92
Louisiana	58,707.27	106,814.52	Rhode Island	54,248.90	71,517.06
Michigan	75,910.45	105,513.33	Idaho	41,880.76	70,222.91
Florida	74,303.15	104,565.43	North Carolina	50,221.55	66,941.26
New Jersey	83,370.35	103,789.58	Indiana	47,952.66	66,913.98
Texas	57,809.47	102,422.69	Kentucky	47,523.48	66,401.05
Maryland	81,569.48	102,072.04	Nebraska	44,656.73	65,961.42
Virginia	71,235.16	98,290.74	Oklahoma	39,988.56	64,570.21
Massachusetts	71,268.76	95,511.79	New Hampshire	50,048.84	61,561.73
Georgia	65,346.32	93,707.59	Mississippi	39,731.49	60,888.52
Delaware	68,628.89	93,493.46	North Dakota	36,265.70	59,534.17
Pennsylvania	62,496.00	92,648.03	Vermont	48,069.45	58,661.96
Ohio	62,295.78	91,813.28	Kansas	37,863.04	58,538.89
Arizona	66,916.41	90,013.22	Iowa	38,967.95	57,075.57
Connecticut	65,389.27	89,502.64	Arkansas	38,742.69	56,326.06
Washington	53,960.28	86,725.41	Montana	34,795.51	55,872.82
Missouri	64,198.05	86,137.90	Maine	38,990.79	50,505.32
Tennessee	60,841.79	84,738.10	South Dakota	33,165.89	48,040.77
Colorado	57,295.74	82,391.84	United States	71,039.48	97,843.44

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: U.S. Government Printing Office, 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington, D.C.: U.S. Government Printing Office, 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Hotels, motels, trailer parks, camps								
Hotels, motor hotels, and motels	1972	1,464	247,240	72,830	16,904	18,462	2,429	258,231
	1977	1,210	414,071	122,520	27,404	24,340	1,979	426,854
Hotels	1972	368	92,759	32,062	7,617	7,293	484	94,265
	1977	365	223,481	73,204	15,067	13,889	430	224,884
Hotels, 25 or more guest rooms	1972	232	86,176	30,482	7,265	6,792	(b)	(b)
	1977	220	216,020	71,794	15,699	13,487	(b)	(b)
Hotels, less than 25 guest rooms	1972	136	6,583	1,580	352	501	(b)	(b)
	1977	145	7,461	1,410	368	402	(b)	(b)
Motels, tourist courts, and motor hotels	1972	1,096	154,481	40,768	9,287	11,170	1,945	163,966
	1977	845	190,590	49,316	11,337	10,451	1,549	201,970
Motels, tourist courts	1972	1,037	126,015	32,500	7,307	8,968	(b)	(b)
	1977	789	147,869	36,577	8,314	7,871	(b)	(b)
Motor hotels	1972	59	28,466	8,268	1,980	2,202	(b)	(b)
	1977	56	42,721	12,739	3,023	2,580	(b)	(b)
Sporting and rec. camps	1972	126	7,187	2,327	541	522	500	10,143
	1977	88	8,554	2,347	510	356	356	11,741
Trailer parks and camps for transients	1972	91	4,232	1,154	166	129	447	9,678
	1977	85	5,977	946	171	92	404	13,962
TOTAL	1972	1,681	258,659	76,311	17,611	19,114	3,376	278,052
	1977	1,383	428,602	125,813	28,085	24,788	2,739	452,557
Personal services								
Laundry, cleaning, garment services	1972	2,506	232,504	90,537	22,028	19,185	3,380	244,520
	1977	1,875	283,116	100,399	23,340	14,589	2,535	295,645
Coin-operated laundries and dry cleaning	1972	790	35,003	7,567	1,961	2,782	1,119	40,114
	1977	609	48,668	9,960	2,555	2,438	834	53,903
Coin-operated laundries and dry cleaning stores	1972	776	31,699	6,816	1,784	2,663	(b)	(b)
	1977	589	40,162	8,473	2,215	2,307	(b)	(b)
Coin-operated laundry machine routes	1972	14	3,304	751	177	119	(b)	(b)
	1977	20	8,506	1,487	340	131	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Personal services (cont.)								
Other laundry, cleaning and garment services	1972	1,716	197,406	82,970	20,067	16,403	2,261	204,406
	1977	1,266	234,448	90,439	20,875	12,151	1,701	241,742
Power laundries, family and commercial	1972	105	21,391	10,590	2,561	2,220	(b)	(b)
	1977	94	27,324	12,052	2,726	1,661	(b)	(b)
Dry-cleaning plants except rug cleaning	1972	1,151	75,733	30,106	7,426	7,607	(b)	(b)
	1977	831	77,972	28,013	6,646	5,195	(b)	(b)
Garment pressing and agents for laundries and dry cleaners	1972	137	6,271	1,855	442	483	(b)	(b)
	1977	57	3,027	1,067	264	196	(b)	(b)
Industrial launderers	1972	62	42,773	17,969	4,435	2,662	(b)	(b)
	1977	50	53,336	21,445	5,041	2,152	(b)	(b)
Linen supply	1972	52	40,228	18,337	4,288	2,643	(b)	(b)
	1977	55	57,699	22,211	4,863	2,170	(b)	(b)
Diaper service	1972	11	2,204	1,044	264	134	(b)	(b)
	1977	9	4,172	1,695	407	139	(b)	(b)
Carpet and upholstery	1972	133	5,751	1,916	390	376	(b)	(b)
	1977	138	9,027	3,229	619	511	(b)	(b)
Other laundry and garmet services	1972	65	3,150	1,153	261	278	(b)	(b)
	1977	32	1,891	727	219	127	(b)	(b)
Photographic studios, portrait	1972	246	25,308	7,360	1,659	1,460	1,166	33,584
	1977	268	35,290	8,779	2,026	1,150	1,286	47,409
Beauty and barber shops	1972	3448	119,624	57,218	13,645	12,709	10,664	169,897
	1977	2,951	154,400	75,016	17,746	12,119	9,527	215,479
Beauty shops	1972	3,006	107,569	51,832	12,290	11,775	6,784	128,719
	1977	2,675	139,571	68,770	16,262	11,354	6,780	170,804
Barber shops	1972	442	12,055	5,386	1,355	934	3,880	41,178
	1977	276	14,829	6,246	1,484	765	2,747	44,675
Shoe repair, shoeshine	1972	107	3,668	1,074	285	246	365	6,144
	1977	77	4,213	1,133	295	180	242	6,677
Funeral serv. crematory	1972	608	93,828	20,494	4,899	2,877	777	98,472
	1977	591	117,853	27,895	6,502	2,774	770	125,001

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Personal services (cont.)								
Miscellaneous personal	1972	460	35,359	11,041	3,109	3,789	1,969	45,368
	1977	501	63,405	20,682	5,337	5,226	2,957	80,941
Reducing salons and health clubs, ex. res.	1972	54	8,711	2,069	564	389	(b)	(b)
	1977	125	24,752	7,596	1,512	1,021	(b)	(b)
Other personal serv. N.E.C.	1972	406	26,648	8,972	2,545	3,400	(b)	(b)
	1977	260	27,598	8,880	2,183	2,217	(b)	(b)
TOTAL	1972	7,375	510,291	187,724	45,625	40,266	18,321	597,985
	1977	6,263	658,277	233,904	55,246	36,038	17,317	771,152
Business services								
Advertising	1972	334	609,666	55,056	12,907	4,813	987	619,621
	1977	334	208,160	78,215	18,212	4,585	1,028	226,185
Advertising agencies	1972	223	585,786	46,558	10,905	3,755	(b)	(b)
	1977	233	167,286	65,186	15,137	3,607	(b)	(b)
Outdoor adv. services	1972	43	12,291	4,398	1,001	506	(b)	(b)
	1977	28	21,428	6,000	1,445	423	(b)	(b)
Radio, television adv. representatives	1972	26	4,710	1,821	422	135	(b)	(b)
	1977	29	10,075	3,224	785	170	(b)	(b)
Publishers' advertising representatives	1972	18	2,900	1,040	256	84	(b)	(b)
	1977	20	4,513	1,593	345	79	(b)	(b)
Miscellaneous adv.	1972	24	3,979	1,239	323	333	(b)	(b)
	1977	24	4,858	2,212	500	306	(b)	(b)
Services to dwellings, other buildings	1972	865	73,434	41,517	9,976	10,804	2,119	82,959
	1977	875	114,948	61,532	14,878	12,179	2,601	131,539
Window cleaning	1972	76	4,905	2,498	531	503	(b)	(b)
	1977	60	4,080	1,962	448	282	(b)	(b)
Disinfecting, exterminating services	1972	61	7,505	3,798	893	549	(b)	(b)
	1977	78	12,697	5,444	1,279	557	(b)	(b)
Other cleaning, maintenance services	1972	728	61,024	35,221	8,552	9,752	(b)	(b)
	1977	738	98,171	54,126	13,151	11,358	(b)	(b)
Computer, data prog.	1972	215	79,827	32,385	7,126	3,457	274	80,415
	1977	352	201,832	75,918	12,225	5,890	499	204,365
Computer programming, software services	1972	48	7,748	4,097	910	331	(b)	(b)
	1977	93	27,801	12,937	2,840	730	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Business services (cont.)								
Computer programing, software services	1972	48	7,748	4,097	910	331	(b)	(b)
	1977	93	27,801	12,937	2,840	730	(b)	(b)
Data processing, except facilities mgmt.	1972	139	55,772	22,779	5,002	2,634	(b)	(b)
	1977	203	133,541	45,645	10,562	4,055	(b)	(b)
Computer, facilities management	1972	7	(d)	(d)	(d)	(d)	(b)	(b)
	1977	20	(d)	(d)	(d)	(d)	(b)	(b)
Computer related, N.E.C.	1972	21	(d)	(d)	(d)	(d)	(b)	(b)
	1977	36	(d)	(d)	(d)	(d)	(b)	(b)
Management, consulting, public relations	1972	536	84,927	35,164	8,547	3,451	2,029	101,536
	1977	700	157,511	67,386	15,988	5,812	3,759	202,107
Mgmt. and consulting	1972	483	78,124	32,512	7,965	3,230	(b)	(b)
	1977	636	147,403	63,192	14,963	5,536	(b)	(b)
Public relations	1972	53	6,803	2,652	582	221	(b)	(b)
	1977	64	10,108	4,187	1,025	276	(b)	(b)
Equip. rental, leasing	1972	281	109,602	24,251	5,300	1,958	664	115,451
	1977	367	153,283	37,312	7,567	2,435	878	164,253
Equip. rental	1972	167	25,906	6,647	1,381	685	(b)	(b)
	1977	223	56,672	11,301	2,421	963	(b)	(b)
Equip. leasing, except finance leasing	1972	45	9,581	3,031	780	292	(b)	(b)
	1977	66	16,544	4,584	1,063	419	(b)	(b)
Leasing, rental heavy cons. equip. with op.	1972	34	14,332	3,325	514	182	(b)	(b)
	1977	33	23,229	4,540	960	253	(b)	(b)
Rental, heavy cons. with operators	1972	35	59,783	11,248	2,625	799	(b)	(b)
	1977	45	56,838	16,887	3,023	800	(b)	(b)
Other bus. services	1972	2,188	431,524	198,683	46,425	33,178	4,457	458,713
	1977	2,400	953,565	409,458	91,546	46,460	5,503	996,672
Adjustment, collection agencies	1972	173	16,191	7,058	1,713	1,063	(b)	(b)
	1977	162	24,450	10,093	2,300	1,243	(b)	(b)
Mercantile reporting agencies	1972	8	(d)	(d)	(d)	(d)	(b)	(b)
	1977	8	(d)	(d)	(d)	(d)	(b)	(b)
Consumer cr. agencies	1972	42	8,907	4,208	97[illegible]	814	(b)	(b)
	1977	43	9,572	3,906	916	536	(b)	(b)
Direct mail adv.	1972	81	18,534	6,496	1,533	1,507	(b)	(b)
	1977	43	9,572	3,906	916	536	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Business services (cont.)								
Blueprinting and photo-copying service	1972	56	9,657	3,263	731	435	(b)	(b)
	1977	84	18,199	5,148	1,201	518	(b)	(b)
Steno., court reporting and typing	1972	73	5,695	2,829	666	426	(b)	(b)
	1977	96	11,826	6,072	1,446	593	(b)	(b)
Duplicating, except printing	1972	23	1,639	567	129	91	(b)	(b)
	1977	24	4,273	1,423	277	121	(b)	(b)
Commer. photo, art, related design	1972	224	44,467	19,355	4,459	1,696	(b)	(b)
	1977	283	101,539	38,385	8,597	2,367	(b)	(b)
Commer. photography	1972	87	11,596	4,197	1,017	429	(b)	(b)
	1977	87	27,006	7,631	1,673	586	(b)	(b)
Commercial art	1972	64	16,398	8,204	1,973	671	(b)	(b)
	1977	70	34,848	14,893	3,411	841	(b)	(b)
Other	1972	73	16,473	6,954	1,469	596	(b)	(b)
	1977	126	39,685	15,861	3,513	940	(b)	(b)
News syndicates	1972	5	(d)	(d)	(d)	(d)	(b)	(b)
	1977	6	(d)	(d)	(d)	(d)	(b)	(b)
Private employment agency	1972	176	21,159	9,339	2,152	1,433	(b)	(b)
	1977	184	20,471	10,351	2,131	1,012	(b)	(b)
Temp. office help, supply services	1972	73	19,274	14,219	3,109	4,203	(b)	(b)
	1977	92	41,687	30,974	6,852	6,768	(b)	(b)
Temp. help supply, except off. workers	1972	40	12,376	9,468	1,866	1,813	(b)	(b)
	1977	87	58,217	40,948	8,929	5,906	(b)	(b)
Personnel supply, N.E.C.	1972	23	5,100	2,582	670	485	(b)	(b)
	1977	16	7,305	4,771	1,015	349	(b)	(b)
Commercial research, development lab.	1972	62	21,054	11,459	2,930	986	(b)	(b)
	1977	62	197,875	52,247	10,878	2,168	(b)	(b)
Commercial testing lab.	1972	48	6,092	2,994	647	279	(b)	(b)
	1977	64	18,800	7,849	1,588	522	(b)	(b)
Detective ag. and guard services	1972	183	44,090	33,782	8,046	8,434	(b)	(b)
	1977	202	78,400	55,619	13,417	10,715	(b)	(b)
Armored car serv.	1972	42	7,606	4,275	986	596	(b)	(b)
	1977	23	14,713	8,313	2,038	848	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Business services (cont.)								
Burglar and fire alarm	1972	26	9,779	4,222	1,030	513	(b)	(b)
	1977	44	17,229	7,344	1,744	878	(b)	(b)
Photofinishing lab.	1972	63	30,773	8,620	2,114	1,181	(b)	(b)
	1977	83	67,099	19,405	4,362	1,911	(b)	(b)
Trading stamp (sales office)	1972	4	(d)	(d)	(d)	(d)	(b)	(b)
	1977	3	(d)	(d)	(d)	(d)	(b)	(b)
Sign painting shops	1972	59	3,870	1,268	300	159	(b)	(b)
	1977	39	6,910	2,428	509	209	(b)	(b)
Interior designing	1972	43	10,854	2,214	563	270	(b)	(b)
	1977	34	4,800	1,058	234	123	(b)	(b)
Telephone ans. serv.	1972	67	5,687	2,726	669	659	(b)	(b)
	1977	76	11,281	5,441	1,282	867	(b)	(b)
Water softening serv.	1972	82	13,438	3,992	945	536	(b)	(b)
	1977	86	17,260	5,306	1,146	467	(b)	(b)
Packaging and labeling	1972	35	17,351	4,742	1,133	682	(b)	(b)
	1977	37	32,472	7,621	1,753	883	(b)	(b)
Misc. bus., N.E.C.	1972	477	75,557	33,853	8,000	4,434	(b)	(b)
	1977	495	149,607	71,278	15,873	6,09?	(b)	(b)
TOTAL	1972	4,419	1,388,980	387,056	90,281	57,661	10,530	1,458,695
	1977	5,028	1,789,299	729,821	165,416	77,379	14,268	1,925,121
Automotive repair, services, and garages								
Auto. repair shops	1972	2,251	246,324	70,252	16,754	8,991	3,926	272,586
	1977	2,693	514,413	148,988	34,355	12,893	4,624	558,094
General auto. repair	1972	815	82,915	21,250	5,127	2,936	1,780	97,548
	1977	942	142,536	37,123	8,966	3,711	2,048	166,884
General auto., except diesel	1972	775	76,686	19,389	4,656	2,663	(b)	(b)
	1977	879	123,172	31,894	7,751	3,297	(b)	(b)
Diesel repair shop	1972	40	6,229	1,861	471	273	(b)	(b)
	1977	63	19,364	5,229	1,215	414	(b)	(b)
Top and body repair shops	1972	739	78,401	24,563	5,974	3,190	1,190	85,922
	1977	855	169,010	59,445	13,791	4,744	1,425	202,296

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Automotive repair, services, garages (cont.)								
Other auto. repair shops	1972	697	85,008	24,439	5,653	2,865	956	89,116
	1977	896	182,867	52,420	11,598	4,438	1,151	188,814
Tire retreading-rpr.	1972	55	9,998	2,528	574	307	(b)	(b)
	1977	54	17,793	4,440	978	399	(b)	(b)
Paint shop	1972	109	11,326	3,514	905	464	(b)	(b)
	1977	129	22,354	7,248	1,578	656	(b)	(b)
Auto. electrical and fuel system serv.	1972	63	5,778	1,675	392	223	(b)	(b)
	1977	75	10,773	2,973	706	298	(b)	(b)
Radiator repair	1972	66	5,933	1,688	400	247	(b)	(b)
	1977	78	14,384	3,915	824	335	(b)	(b)
Glass repl. - repair	1972	115	18,778	5,182	1,191	574	(b)	(b)
	1977	120	28,789	8,224	1,902	700	(b)	(b)
Brake, front end, and wheel alignment	1972	81	7,460	2,340	533	287	(b)	(b)
	1977	79	15,379	5,055	1,105	390	(b)	(b)
Exhaust system (muffler shops)	1972	68	11,670	2,879	576	240	(b)	(b)
	1977	104	27,432	6,901	1,387	503	(b)	(b)
Transmission repair	1972	109	10,544	3,361	819	390	(b)	(b)
	1977	215	30,302	9,289	2,182	812	(b)	(b)
Other auto. repair N.E.C.	1972	31	3,521	1,272	263	133	(b)	(b)
	1977	42	15,661	4,375	936	345	(b)	(b)
Auto. rental, leasing, without drivers	1972	270	121,147	15.296	3,828	1,822	369	124,019
	1977	291	291,439	29,608	6,624	2,257	425	295,910
Passenger car rental without drivers	1972	68	21,933	3,939	980	579	(b)	(b)
	1977	62	37,140	6,347	1,504	685	(b)	(b)
Passenger car leasing, ex. finance leasing	1973	57	25,112	2,236	535	216	(b)	(b)
	1977	57	138,609	5,745	1,449	411	(b)	(b)
Truck rental, without drivers	1972	37	23,057	2,876	730	338	(b)	(b)
	1977	53	33,758	4,768	1,095	366	(b)	(b)
Truck leasing, except finance leasing	1972	76	49,091	5,863	1,496	620	(b)	(b)
	1977	91	76,537	12,074	2,418	720	(b)	(b)
Utility and recreation vehicle rental	1972	32	1,954	372	87	69	(b)	(b)
	1977	28	5,395	674	158	69	(b)	(b)
Automobile parking	1972	324	21,707	4,577	1,175	1,085	394	22,483
	1977	235	25,866	5,869	1,398	906	283	26,975

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Automotive repair, services, garages (cont.)								
Parking lots	1972	304	13,292	3,225	823	835	(b)	(b)
	1977	209	15,963	3,355	885	629	(b)	(b)
Parking structures	1972	20	8,415	1,352	352	250	(b)	(b)
	1977	26	9,903	2,114	513	277	(b)	(b)
Auto. serv., except repair	1972	542	47,903	13,855	3,514	4,128	1,056	54,866
	1977	568	88,573	25,740	6,178	4,030	1,155	99,977
Car wash	1972	429	38,510	10,109	2,636	3,604	(b)	(b)
	1977	370	45,076	10,996	2,856	2,689	(b)	(b)
Other auto. serv.	1972	113	9,393	3,746	878	524	(b)	(b)
	1977	198	43,497	14,744	3,322	1,341	(b)	(b)
TOTAL	1972	3,387	437,081	103,970	25,271	16,026	5,745	473,954
	1977	3,787	920,291	209,805	48,555	20,086	6,487	980,956
Miscellaneous repair services								
Elec. and electronic repair shops	1972	540	59,248	20,543	4,773	2,420	1,866	73,142
	1977	607	103,859	33,405	7,893	2,978	1,773	121,917
Radio and TV repair	1972	318	31,493	9,776	2,333	1,259	1,255	41,071
	1977	332	43,294	13,321	3,140	1,327	1,119	54,743
Other elec. and electronic repair	1972	222	27,755	10,767	2,440	1,161	611	32,071
	1977	275	60,565	20,084	4,753	1,651	645	67,174
Refrigeration and air-conditioning repair	1972	88	7,839	2,592	537	250	(b)	(b)
	1977	89	18,752	5,439	1,166	404	(b)	(b)
Elec. and electronic, N.E.C.	1972	134	19,916	8,175	1,903	911	(b)	(b)
	1977	186	41,813	14,645	3,587	1,247	(b)	(b)
Reupholstery and furniture	1972	190	11,819	3,759	899	659	781	17,379
	1977	198	17,107	5,203	1,211	706	754	24,170
Other repair shops and related services	1972	877	126,164	42,098	9,707	4,587	2,296	140,096
	1977	1,095	239,635	76,899	16,930	6,152	2,716	261,719
Watch, clock, jewelry	1972	54	4,221	1,082	266	158	(b)	(b)
	1977	60	7,190	1,380	315	169	(b)	(b)
Misc. repair and related services	1972	823	121,943	41,016	9,441	4,429	(b)	(b)
	1977	1,035	232,445	75,519	16,615	5,983	(b)	(b)
Welding repair	1972	159	17,059	5,852	1,294	685	(b)	(b)
	1977	179	37,746	13,429	2,637	1,112	(b)	(b)
Armature rewinding shop	1972	90	24,207	8,143	1,898	810	(b)	(b)
	1977	90	47,286	15,482	3,542	1,011	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Miscellaneous repair services (cont.)								
Farm machinery/equip.	1972	16	1,739	574	152	72	(b)	(b)
	1977	21	3,296	973	221	81	(b)	(b)
Lawnmower, saw, knife, tool sharpening rpr.	1972	66	6,244	2,089	489	242	(b)	(b)
	1977	58	9,809	2,962	672	288	(b)	(b)
Sewer, septic tank cleaning	1972	68	6,728	2,016	437	210	(b)	(b)
	1977	53	7,750	2,731	596	198	(b)	(b)
Other rpr.-related services, N.E.C.	1972	424	65,966	22,342	5,171	2,410	(b)	(b)
	1977	634	126,558	39,942	8,947	3,293	(b)	(b)
TOTAL	1972	1,607	197,231	66,400	15,379	7,666	4,943	230,617
	1977	1,900	360,601	115,507	26,034	9,836	5,243	407,806
Amusement and recreation services, including motion pictures								
Motion picture prod. dist., services	1972	85	49,829	11,587	2,540	939	151	50,933
	1977	87	84,693	12,618	2,743	749	173	85,959
Motion picture prod., except TV	1972	26	12,878	4,523	902	280	(b)	(b)
	1977	30	25,216	6,309	1,289	817	(b)	(b)
Motion picture, tape prod. for TV	1972	12	8,175	2,864	600	253	(b)	(b)
	1977	9	2,208	577	136	37	(b)	(b)
Services allied to motion picture prod.	1972	15	6,441	2,230	531	172	(b)	(b)
	1977	14	9,742	3,402	769	199	(b)	(b)
Motion picture film ex.	1972	20	20,797	1,528	395	177	(b)	(b)
	1977	23	43,565	1,772	402	127	(b)	(b)
Film or tape dist. for TV	1972	1	(d)	(d)	(d)	(d)	(b)	(b)
	1977	2	(d)	(d)	(d)	(d)	(b)	(b)
Serv. allied to motion picture distribution	1972	11	(d)	(d)	(d)	(d)	(b)	(b)
	1977	9	(d)	(d)	(d)	(d)	(b)	(b)
Motion picture theaters	1972	362	64,964	13,465	3,034	4,481	395	65,578
	1977	341	92,607	15,715	3,536	3,565	375	94,199
Motion picture theaters, except drive-in	1972	256	48,167	10,387	2,441	3,572	(b)	(b)
	1977	238	74,253	12,568	3,051	3,148	(b)	(b)
Drive-in motion pic.	1972	106	16,797	3,078	593	909	(b)	(b)
	1977	103	18,354	3,147	485	417	(b)	(b)
Producers, orchestras, entertainers	1972	234	22,543	7,433	1,739	990	1,734	34,692
	1977	106	30,068	6,059	1,089	582	2,131	49,710

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Amusement and recreation services, including motion pictures (cont.)								
Dance bands, orchestra except symphony	1972	128	2,125	1,098	272	356	(b)	(b)
	1977	7	111	53	20	9	(b)	(b)
Symphony orchestras, other classical music, dance groups	1972	13	(d)	(d)	(d)	(d)	(b)	(b)
	1977	--	--	--	--	--	(b)	(b)
Other entertainment presentations, incl. variety	1972	30	3,560	994	223	101	(b)	(b)
	1977	46	(d)	(d)	(d)	(d)	(b)	(b)
Prod. of legitimate theater	1972	26	9,490	2,227	541	265	(b)	(b)
	1977	17	2,096	509	69	57	(b)	(b)
Prod. of radio and TV shows, except tape	1972	2	(d)	(d)	(d)	(d)	(b)	(b)
	1977	3	(d)	(d)	(d)	(d)	(b)	(b)
Theatrical services	1972	35	5,752	1,200	211	111	(b)	(b)
	1977	33	14,704	3,163	567	209	(b)	(b)
Artists' - entertainers' mgrs. or agents, concert bureaus, bkg. agents	1972	15	3,226	672	147	66	(b)	(b)
	1977	18	6,871	1,565	220	79	(b)	(b)
Other theatrical serv.	1972	20	2,526	528	64	45	(b)	(b)
	1977	15	7,833	1,598	347	130	(b)	(b)
Bowling alleys, billiards and pool	1972	477	93,866	25,532	6,615	6,888	1,110	101,124
	1977	446	138,829	38,542	10,313	9,131	550	141,942
Billiard and pool establishments	1972	70	2,999	801	203	215	316	5,725
	1977	38	2,862	764	202	203	83	3,756
Bowling alleys	1972	407	90,867	24,731	6,412	6,673	794	95,399
	1977	408	135,967	37,778	10,111	8,928	467	138,186
Other amusement and rec. services	1972	1,301	220,701	70,033	13,553	9,080	2,509	233,696
	1977	1,110	263,003	70,841	14,067	7,975	2,911	288,030
Dance halls, studios, and schools	1972	76	2,306	779	217	316	(b)	(b)
	1977	95	5,134	1,803	471	467	(b)	(b)
Public dance halls or ballrooms	1972	6	(d)	(d)	(d)	(d)	(b)	(b)
	1977	7	1,072	352	63	71	(b)	(b)
Dance schools, inc. childrens and profess.	1972	70	(d)	(d)	(d)	(d)	(b)	(b)
	1977	88	4,062	1,451	408	396	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Amusement and recreation services (cont.)								
Commercial sports	1972	127	77,561	19,903	4,991	1,259	(b)	(b)
	1977	89	100,968	28,447	5,501	1,389	(b)	(b)
Profess. sports clubs, mgrs., promoters	1972	18	17,389	9,693	2,173	376	(b)	(b)
	1977	19	29,225	13,951	3,826	642	(b)	(b)
Baseball clubs	1972	2	(d)	(d)	(d)	(d)	(b)	(b)
	1977	3	(d)	(d)	(d)	(d)	(b)	(b)
Football clubs	1972	1	(d)	(d)	(d)	(d)	(b)	(b)
	1977	2	(d)	(d)	(d)	(d)	(b)	(b)
Other profess. sports	1972	11	7,360	3,392	1,387	129	(b)	(b)
	1977	6	(d)	(d)	(d)	(d)	(b)	(b)
Managers and promoters	1972	4	813	386	107	108	(b)	(b)
	1977	8	645	178	69	51	(b)	(b)
Racing, incl. track operation	1972	109	60,172	10,210	2,818	883	(b)	(b)
	1977	70	71,743	14,496	1,675	747	(b)	(b)
Racetrack operation	1972	47	56,447	9,036	2,553	679	(b)	(b)
	1977	25	65,950	12,772	1,305	509	(b)	(b)
Auto racetrack oper.	1972	36	4,097	687	75	219	(b)	(b)
	1977	21	(d)	(d)	(d)	(d)	(b)	(b)
Horse racetrack oper.	1972	11	52,380	8,349	2,478	460	(b)	(b)
	1977	4	(d)	(d)	(d)	(d)	(b)	(b)
Dog racetrack oper.	1972	(b)	(b)	(b)	(b)	(b)	(b)	(b)
	1977	--	--	--	--	--	--	--
Racing stables, racing, N.E.C.	1972	62	3,695	1,174	265	204	(b)	(b)
	1977	45	5,793	1,724	370	238	(b)	(b)
Public golf course, except municipal	1972	194	19,349	5,402	599	483	(b)	(b)
	1977	210	32,805	8,991	1,043	587	(b)	(b)
Membership sports and recreation clubs	1972	367	73,781	31,140	5,045	4,719	(b)	(b)
	1977	195	45,273	13,493	2,600	1,910	(b)	(b)
Coin-operated amusement device	1972	61	6,970	1,576	383	235	(b)	(b)
	1977	78	13,803	3,072	755	383	(b)	(b)
Amusement parks	1972	18	3,039	1,024	93	72	(b)	(b)
	1977	25	5,632	1,550	112	92	(b)	(b)
Concession operators of amusement devices, rides	1972	36	7,197	1,765	319	187	(b)	(b)
	1977	38	9,567	1,364	206	120	(b)	(b)
Carnivals, circuses	1972	9	2,008	329	70	6	(b)	(b)
	1977	3	934	105	16	10	(b)	(b)

TABLE XXIII-6. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN, BY KIND OF BUSINESS: 1972 AND 1977 (cont.)

Kind of business	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Amusement and recreation services (cont.)								
Fairs	1972	27	2,443	577	49	50	(b)	(b)
	1977	7	785	312	20	6	(b)	(b)
Other comm. rec. and amusements	1972	386	26,047	7,538	1,787	1,753	(b)	(b)
	1977	362	47,862	11,659	3,325	2,999	(b)	(b)
TOTAL	1972	2,459	451,903	128,050	27,481	22,378	5,899	486,023
	1977	2,090	609,200	143,775	31,748	22,002	6,140	659,837
Dental laboratories								
TOTAL	1972	181	21,047	8,773	1,971	1,113	336	23,572
	1977	222	37,321	15,592	3,632	1,367	389	40,788
Legal services								
TOTAL	1972	2,650	369,949	103,516	22,800	9,342	4,723	409,845
	1977	3,236	573,526	212,227	47,344	13,312	5,562	622,848
Architectural, engineering, and land surveying services								
Architectural serv.	1972	310	72,025	36,871	8,995	2,764	(b)	(b)
	1977	331	104,436	48,597	11,150	2,612	(b)	(b)
Engineering serv.	1972	513	194,358	113,480	25,646	8,590	(b)	(b)
	1977	522	378,177	212,394	46,089	10,604	(b)	(b)
Land-surveying serv.	1972	136	17,443	9,752	2,152	1,098	(b)	(b)
	1977	159	22,152	11,746	2,304	824	(b)	(b)
TOTAL	1972	959	283,826	160,103	36,793	12,452	2,207	298,315
	1977	1,012	504,765	272,737	59,543	14,043	2,405	527,767
TOTAL SEL. SERV.	1972	24,718	3,918,967	1,221,903	283,212	186,018	56,080	4,257,058
	1977	24,921	5,881,882	2,059,181	465,603	218,851	60,550	6,388,832

SOURCE: Bureau of the Census, 1972 Census of Selected Service Industries, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 1; and Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 1.

a. Week including 12 March.

b. Data not provided because establishments with no payroll are classified only at the next broader kind-of-business level.

d. Data withheld to avoid disclosing figures for individual companies.

N.E.C.: not elsewhere classified.

TABLE XXIII-7. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACE THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 AND 1977

County	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Alcona	1972	16	869	344	70	86	70	1,467
	1977	17	1,000	244	63	45	66	1,690
Alger	1972	29	1,213	160	37	47	84	1,594
	1977	21	1,354	219	44	37	85	2,122
Allegan	1972	151	11,621	3,198	642	566	427	14,382
	1977	151	17,029	4,211	929	659	472	20,999
Alpena	1972	102	5,771	1,819	380	397	229	7,014
	1977	95	14,904	3,399	760	493	261	16,914
Antrim	1972	39	4,547	1,440	375	384	122	5,302
	1977	39	6,485	2,217	540	435	145	7,741
Arenac	1972	34	1,790	356	82	69	79	2,185
	1977	26	2,193	456	98	91	91	2,888
Baraga	1972	13	658	156	38	39	48	989
	1977	16	1,404	399	67	652	50	1,805
Barry	1972	74	3,457	821	196	318	224	4,998
	1977	60	3,933	1,002	252	204	222	6,290
Bay	1972	269	24,427	7,348	1,809	1,532	689	28,381
	1977	274	41,118	13,299	2,974	1,551	678	46,608
Benzie	1972	45	1,771	428	66	83	94	2,258
	1977	41	3,833	796	192	175	110	4,989
Berrien	1972	487	52,351	15,380	3,473	3,250	1,198	59,413
	1977	475	70,436	22,452	5,192	3,245	1,301	80,673
Branch	1972	96	7,302	1,548	352	365	242	8,847
	1977	90	12,656	2,192	467	269	282	15,003
Calhoun	1972	393	38,972	13,470	3,167	2,631	868	44,114
	1977	365	52,244	18,664	4,421	2,564	869	58,860
Cass	1972	86	3,587	864	162	190	246	5,068
	1977	79	7,458	1,983	452	352	256	9,904
Charlevoix	1972	77	7,286	2,016	586	448	164	8,147
	1977	75	10,032	2,653	841	608	195	11,243
Cheboygan	1972	115	4,794	1,379	218	227	232	5,749
	1977	113	7,620	2,040	340	260	240	9,145
Chippewa	1972	110	6,229	1,630	345	371	278	7,408
	1977	114	9,851	2,925	604	471	273	11,965

TABLE XXIII-7. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 AND 1977 (cont.)

		Establishments with payroll					All establishments	
				Payroll ($1,000)		Paid		
County	Year	Number	Receipts ($1,000)	Entire year	First quarter	employees 12 March[a]	Number	Receipts ($1,000)
Clare	1972	50	3,949	931	231	168	141	4,868
	1977	48	4,974	1,213	323	241	185	6,740
Clinton	1972	87	5,092	1,248	282	277	268	6,864
	1977	81	10,959	3,677	849	418	275	13,324
Crawford	1972	51	3,176	993	204	222	84	3,604
	1977	42	4,014	1,026	255	210	92	4,853
Delta	1972	118	8,092	2,013	413	510	261	9,166
	1977	108	10,740	3,424	762	492	283	12,692
Dickinson	1972	86	5,748	1,576	361	451	173	6,483
	1977	81	9,810	2,929	774	488	188	10,819
Eaton	1972	144	7,997	2,138	509	430	424	10,826
	1977	148	16,745	5,012	1,165	725	467	20,861
Emmet	1972	129	13,179	3,563	891	860	251	14,412
	1977	127	20,406	5,572	1,456	982	277	22,309
Genesee	1972	1,126	127,132	42,968	9,920	7,446	2,328	139,586
	1977	1,072	182,797	64,245	14,897	8,136	2,348	201,774
Gladwin	1972	30	1,276	234	36	59	94	1,918
	1977	27	2,058	560	135	87	103	3,015
Gogebic	1972	69	4,420	1,070	359	416	159	5,165
	1977	69	7,359	2,104	723	559	160	8,405
Grand Traverse	1972	216	19,805	5,867	1,258	1,028	437	21,934
	1977	246	40,787	12,775	2,815	1,739	607	45,383
Gratiot	1972	95	5,545	1,444	346	326	235	6,831
	1977	80	7,569	1,771	468	293	262	9,682
Hillsdale	1972	84	3,966	1,083	238	258	248	5,553
	1977	83	9,047	2,414	543	328	264	11,471
Houghton	1972	88	5,843	1,306	326	360	214	7,056
	1977	89	10,011	2,261	542	417	240	11,787
Huron	1972	98	4,717	1,258	405	369	252	6,228
	1977	83	5,845	1,309	296	214	285	8,148
Ingham	1972	797	109,319	38,456	8,754	6,361	1,730	118,874
	1977	525	174,177	62,520	13,586	6,800	2,088	190,402
Ionia	1972	85	4,310	1,121	221	224	266	6,083
	1977	85	6,481	1,639	369	285	290	9,332

TABLE XXIII-7. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 AND 1977 (cont.)

County	Year	Establishments with payroll					All establishments	
				Payroll ($1,000)				
		Number	Receipts ($1,000)	Entire year	First quarter	Paid employees 12 March[a]	Number	Receipts ($1,000)
Iosco	1972	81	3,103	704	144	208	234	4,594
	1977	84	5,448	1,452	315	238	226	7,852
Iron	1972	41	2,946	812	186	194	110	3,580
	1977	38	4,408	1,184	290	169	119	5,396
Isabella	1972	98	8,183	2,575	564	628	260	9,711
	1977	111	15,033	5,072	1,131	675	274	16,825
Jackson	1972	371	35,164	11,104	2,642	2,153	902	40,181
	1977	348	121,588	49,373	10,501	4,198	931	129,746
Kalamazoo	1972	581	78,318	26,240	6,034	4,448	1,324	85,823
	1977	645	137,600	45,459	10,231	5,605	1,526	148,406
Kalkaska	1972	15	464	105	13	31	49	785
	1977	25	2,442	771	155	93	81	3,150
Kent	1972	1,276	191,971	64,460	15,339	10,950	2,718	208,102
	1977	,372	300,160	107,269	24,834	13,834	3,046	325,513
Keweenaw	1972	9	502	137	8	21	20	582
	1977	9	339	80	90	6	21	466
Lake	1972	21	548	117	26	34	55	817
	1977	13	620	91	19	14	60	1,473
Lapeer	1972	104	6,825	2,153	474	338	261	8,287
	1977	109	10,102	2,826	661	402	369	13,565
Leelanau	1972	55	4,205	1,317	285	252	123	5,079
	1977	40	4,708	1,464	378	276	139	5,819
Lenawee	1972	231	17,396	5,482	1,249	1,193	602	20,886
	1977	217	24,431	6,477	1,482	1,045	631	29,760
Livingston	1972	131	12,189	3,649	839	774	351	14,485
	1977	173	37,039	9,630	2,590	1,491	500	41,558
Luce	1972	28	903	190	52	48	69	1,249
	1977	26	1,673	375	84	78	63	2,062
Mackinac	1972	93	6,941	1,987	171	150	199	7,766
	1977	69	11,705	3,145	264	150	155	12,788
Macomb	1972	1,450	185,291	68,248	15,392	9,543	3,161	204,489
	1977	1,710	498,837	160,160	35,372	14,645	3,937	537,503
Manistee	1972	62	3,994	1,022	236	276	178	4,935
	1977	71	6,761	1,679	369	255	192	8,049

TABLE XXIII-7. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 AND 1977 (cont.)

		Establishments with payroll					All establishments	
				Payroll ($1,000)		Paid		
County	Year	Number	Receipts ($1,000)	Entire year	First quarter	employees 12 March[a]	Number	Receipts ($1,000)
Marquette	1972	151	9,596	2,504	575	630	342	11,332
	1977	172	19,062	5,806	1,342	906	386	21,274
Mason	1972	84	5,260	1,558	324	308	184	6,415
	1977	85	7,417	1,884	436	370	203	9,119
Mecosta	1972	50	3,722	943	182	190	150	4,544
	1977	53	5,470	1,624	330	221	185	6,886
Menominee	1972	53	2,739	701	168	189	152	3,621
	1977	45	5,216	1,373	417	358	174	6,748
Midland	1972	139	30,168	9,738	2,347	1,416	321	31,835
	1977	141	26,971	9,899	2,169	1,281	463	30,195
Missaukee	1972	12	286	57	9	9	43	628
	1977	14	802	152	27	23	53	1,322
Monroe	1972	199	17,071	5,168	1,058	952	526	20,258
	1977	220	36,084	9,590	2,095	1,243	596	40,321
Montcalm	1972	91	4,856	1,022	241	274	271	6,627
	1977	80	5,618	1,210	327	270	291	8,039
Montmorency	1972	17	633	199	38	50	66	1,054
	1977	21	1,181	515	104	39	81	1,791
Muskegon	1972	372	32,384	10,146	2,262	2,010	903	37,498
	1977	361	53,091	15,971	3,730	2,111	892	58,820
Newaygo	1972	58	2,495	663	157	153	184	3,517
	1977	48	2,574	719	150	91	173	3,902
Oakland	1972	3,336	693,733	235,115	55,067	28,522	7,298	744,398
	1977	4,300	1,455,128	529,690	118,358	46,587	9,559	1,547,424
Oceana	1972	46	1,929	532	90	95	127	2,584
	1977	41	3,450	874	191	162	147	4,549
Ogemaw	1972	42	2,517	777	76	69	108	3,189
	1977	39	7,670	1,027	196	102	125	8,626
Ontonagon	1972	23	979	217	61	90	70	1,470
	1977	18	1,235	248	64	88	81	2,033
Osceola	1972	26	812	176	35	51	98	1,768
	1977	29	2,946	765	121	103	129	4,197
Oscoda	1972	17	559	131	32	43	54	819
	1977	13	542	160	24	21	55	925

TABLE XXIII-7. GENERAL STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY PLACED THEM AMONG SELECTED SERVICE INDUSTRIES, BY COUNTY: 1972 AND 1977 (cont.)

		Establishments with payroll					All establishments	
				Payroll ($1,000)		Paid		
County	Year	Number	Receipts ($1,000)	Entire year	First quarter	employees 12 March[a]	Number	Receipts ($1,000)
Otsego	1972	65	6,244	2,017	542	461	126	6,921
	1977	66	12,182	3,667	840	576	157	13,386
Ottawa	1972	293	26,650	7,947	1,754	1,576	719	30,965
	1977	324	500,949	16,670	3,810	2,235	926	59,246
Presque Isle	1972	35	1,393	294	75	85	92	1,826
	1977	31	1,723	478	114	69	110	2,669
Roscommon	1972	75	2,914	800	159	147	238	4,312
	1977	65	3,419	771	169	124	248	5,663
Saginaw	1972	572	70,659	23,012	5,432	4,111	1,145	76,792
	1977	577	104,423	33,723	7,888	4,296	1,225	112,914
St. Clair	1972	300	25,785	8,515	1,874	1,549	802	31,016
	1977	285	33,477	10,262	2,490	1,576	809	40,523
St. Joseph	1972	126	10,039	2,554	590	543	355	12,037
	1977	125	13,709	3,608	838	547	363	16,823
Sanilac	1972	67	3,042	713	151	175	237	4,889
	1977	74	5,935	1,266	248	171	285	8,357
Schoolcraft	1972	45	1,891	358	56	87	96	2,335
	1977	48	3,545	754	138	113	90	3,929
Shiawassee	1972	137	13,346	3,329	717	589	376	15,802
	1977	123	15,298	4,400	1,000	596	390	18,742
Tuscola	1972	83	3,633	1,121	263	270	'56	5,263
	1977	82	5,005	1,149	265	179	307	7,678
Van Buren	1972	144	14,301	3,332	750	549	368	16,271
	1977	122	25,850	6,029	1,206	676	390	29,281
Washtenaw	1972	665	113,277	42,992	9,596	5,701	1,726	124,101
	1977	778	227,925	95,431	21,720	8,335	2,297	246,699
Wayne	1972	7,180	1,740,721	503,581	117,622	72,650	15,006	1,831,365
	1977	6,040	1,761,451	645,932	147,090	67,073	12,365	1,867,446
Wexford	1972	79	6,181	1,763	483	465	166	7,498
	1977	96	11,714	3,376	830	601	215	13,533
TOTAL	1972	24,718	3,918,967	1,221,903	283,212	186,018	56,080	4,257,058
	1977	24,921	5,881,882	2,059,181	465,603	218,851	60,550	6,388,832

SOURCE: Bureau of the Census, 1972 Census of Selected Service Industries, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 7.

a. Week including 12 March.

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Adrian	1972	195	10,087	101	9,086	3,307	789	728
	1977	230	14,864	104	12,789	4,070	936	655
Albion	1972	87	3,062	41	2,699	783	173	161
	1977	83	5,386	37	4,730	1,396	342	220
Algonac	1972	34	610	13	423	81	17	24
	1977	34	1,219	10	715	166	36	23
Allegan	1972	87	3,010	37	2,406	756	182	138
	1977	115	5,107	43	4,178	1,390	302	185
Allen Park	1972	194	13,642	97	12,422	5,564	1,271	953
	1977	217	22,892	99	21,182	6,139	1,270	835
Alma	1972	84	3,509	45	3,138	854	204	183
	1977	100	4,092	38	3,465	769	197	152
Alpena	1972	149	5,041	82	4,295	1,341	296	281
	1977	193	9,317	81	7,989	2,091	473	376
Ann Arbor	1972	992	82,095	373	75,783	28,672	6,287	3,470
	1977	1,402	150,663	445	139,208	61,138	13,865	5,396
Bad Axe	1972	48	1,863	27	1,666	503	280	207
	1977	60	2,225	23	1,800	293	70	52
Battle Creek	1972	416	23,027	201	20,847	7,452	1,761	1,388
	1977	451	31,057	187	27,772	10,961	2,591	1,411
Bay City	1972	382	17,911	177	16,114	5,083	1,285	1,028
	1977	367	31,766	173	29,222	9,763	2,195	1,153
Belding	1972	32	589	10	405	93	23	24
	1977	43	1,355	14	953	276	65	62
Benton Harbor	1972	269	15,877	109	14,212	3,623	826	747
	1977	195	196,939	77	18,158	4,809	1,080	607
Berkley	1972	153	19,425	74	18,213	10,433	2,390	1,090
	1977	165	20,199	82	18,994	9,760	2,382	754
Bessemer	1972	26	305	7	221	46	11	11
	1977	34	1,522	16	1,363	428	207	159
Beverly Hills	1972	114	5,583	30	4,341	1,998	365	197
	1977	100	5,510	21	4,247	1,846	470	166

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Big Rapids	1972	80	2,721	29	2,250	578	101	107
	1977	93	4,565	32	3,923	1,182	250	173
Birmingham	1972	400	33,891	195	30,989	11,712	2,682	1,440
	1977	539	54,178	250	48,019	18,265	4,130	1,713
Blissfield	1972	44	2,114	20	1,899	426	108	75
	1977	44	1,404	14	1,134	206	41	32
Bloomfield Hills	1972	135	55,476	62	54,455	10,930	2,454	1,145
	1977	189	52,207	74	49,558	16,951	3,998	1,374
Boyne City	1972	41	1,370	22	1,203	272	68	71
	1977	51	1,601	21	1,306	357	92	62
Buchanan	1972	50	1,774	21	1,528	288	64	77
	1977	49	2,095	12	1,727	435	140	68
Burton	1972	68	6,516	38	6,200	2,000	410	479
	1977	122	8,845	57	8,001	2,793	692	351
Cadillac	1972	121	4,933	61	4,301	1,241	292	315
	1977	153	7,671	65	6,534	1,954	463	276
Caro	1972	50	1,545	25	1,284	482	101	110
	1977	79	2,701	27	2,089	457	101	71
Center Line	1972	68	11,768	47	11,676	4,269	977	528
	1977	64	(D)	39	(D)	(D)	(D)	(D)
Charlevoix	1972	56	1,685	26	1,420	456	97	88
	1977	60	2,178	27	1,784	589	125	74
Charlotte	1972	108	2,947	47	2,316	512	123	135
	1977	110	3,639	33	2,618	606	148	106
Cheboygan	1972	95	2,922	50	2,564	892	153	146
	1977	89	3,586	45	2,996	921	196	129
Chelsea	1972	39	1,069	15	644	171	34	35
	1977	46	2,170	20	1,515	349	84	54
Chesaning	1972	37	965	14	622	153	38	40
	1977	32	2,060	15	1,739	496	122	68
Clare	1972	66	3,355	29	3,906	779	189	117
	1977	71	(D)	29	(D)	(D)	(D)	(D)

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Clawson	1972	141	6,834	60	5,970	2,579	621	320
	1977	128	9,917	57	8,922	3,650	786	329
Coldwater	1972	107	5,819	52	5,069	1,072	249	203
	1977	165	11,136	54	9,634	1,664	330	179
Corunna	1972	24	471	6	353	45	8	13
	1977	32	920	7	672	81	18	16
Davison	1972	54	1,233	24	936	223	53	52
	1977	65	2,128	24	1,622	507	119	84
Dearborn	1972	721	63,708	358	59,295	20,458	4,881	3,450
	1977	739	151,201	370	145,245	49,260	11,399	5,650
Dearborn Hgts.	1972	353	14,553	138	12,241	4,040	850	719
	1977	362	23,900	151	21,133	7,140	1,646	838
Detroit	1972	8,907	1,357,293	4,534	1,305,538	374,434	87,999	51,670
	1977	6,468	1,122,030	3,223	1,070,580	420,019	97,166	42,721
Dowagic	1972	93	1,854	31	1,343	366	65	72
	1977	103	3,942	38	2,999	665	151	108
Durand	1972	42	780	17	505	134	25	46
	1977	32	920	7	672	81	18	16
East Detroit	1972	295	15,935	148	14,311	4,764	1,132	714
	1977	303	29,536	144	29,956	9,066	2,113	1,211
East Grand Rapids	1972	69	2,045	28	1,531	502	122	93
	1977	73	2,911	22	2,145	973	233	90
East Lansing	1972	233	7,854	79	6,284	2,403	538	394
	1977	294	18,871	81	16,129	6,706	1,265	637
Eaton Rapids	1972	54	887	20	599	89	22	25
	1977	49	1,185	15	733	171	36	27
Ecorse	1972	74	4,216	26	3,685	1,536	360	355
	1977	47	3,292	17	2,825	894	201	74
Escanaba	1972	163	7,224	86	6,638	1,739	353	404
	1977	158	10,260	82	9,187	3,048	684	439
Essexville	1972	29	1,046	8	828	231	54	53
	1977	34	2,021	8	1,614	479	116	66

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Farmington	1972	218	12,171	100	10,738	3,515	827	520
	1977	207	23,542	92	21,056	6,876	1,703	1,047
Fenton	1972	94	2,751	42	2,276	634	121	112
	1977	102	3,989	35	3,025	834	182	108
Ferndale	1972	251	16,765	137	15,511	6,259	1,459	905
	1977	249	33,706	125	31,675	11,246	2,618	1,326
Flat Rock	1972	44	1,439	19	1,125	279	72	78
	1977	49	2,868	22	2,399	668	168	98
Flint	1972	1,238	86,440	685	80,256	27,784	6,638	4,701
	1977	1,180	121,123	644	111,828	40,005	9,409	5,125
Flushing	1972	36	862	16	677	230	50	65
	1977	76	2,068	18	1,240	541	133	73
Frankenmuth	1972	21	2,695	9	2,545	660	244	65
	1977	37	2,730	20	2,454	872	199	144
Franklin	1972	25	789	4	488	305	69	58
	1977	69	7,273	35	6,631	2,538	550	171
Fraser	1972	74	5,822	40	5,276	1,715	371	240
	1977	110	15,992	58	15,037	5,924	1,322	510
Fremont	1972	64	1,524	26	1,115	288	66	70
	1977	72	1,921	25	1,376	492	69	55
Garden City	1972	179	6,229	84	5,374	1,653	389	340
	1977	193	14,794	92	13,481	5,542	1,348	599
Gaylord	1972	64	3,857	37	3,498	966	221	224
	1977	98	9,597	46	8,859	2,586	549	380
Gibraltar	1972	11	(D)	3	80	39	1	1
	1977	14	161	4	(D)	(D)	(D)	(D)
Gladstone	1972	56	1,371	24	1,076	219	48	95
	1977	66	1,498	18	1,109	301	64	40
Grand Blanc	1972	47	2,918	23	2,667	1,079	265	244
	1977	75	7,531	33	6,758	3,013	695	306
Grand Haven	1972	126	7,418	70	6,801	2,258	556	348
	1977	148	10,144	58	9,016	4,341	1,105	418

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Grand Ledge	1972	60	1,040	19	688	194	46	45
	1977	92	2,837	27	1,854	562	126	82
Grand Rapids	1972	1,452	141,603	761	133,760	46,799	11,370	7,680
	1977	1,586	204,592	776	192,154	72,307	16,395	9,262
Grandville	1972	75	2,928	28	2,257	685	137	115
	1977	109	6,869	48	5,746	1,616	309	207
Greenville	1972	71	2,899	38	2,433	554	130	152
	1977	78	3,176	26	2,483	568	145	98
Grosse Pointe	1972	131	4,084	37	3,062	1,281	361	191
	1977	101	4,983	39	4,073	1,837	431	218
Grosse Pointe Farms	1972	112	4,968	24	3,879	1,589	346	433
	1977	106	3,392	26	2,122	715	196	164
Grosse Pointe Park	1972	148	3,873	35	2,394	951	168	174
	1977	123	6,155	35	4,813	1,106	222	130
Grosse Pointe Shores	1972	68	3,909	5	(D)	(D)	(D)	(D)
	1977	29	1,051	3	(D)	(D)	(D)	(D)
Grosse Pointe Woods	1972	189	9,814	49	8,094	2,727	629	501
	1977	188	11,588	58	8,965	3,565	878	432
Hamtramck	1972	141	10,610	72	9,624	4,074	1,003	819
	1977	117	6,283	59	5,486	1,608	422	248
Hancock	1972	41	2,062	22	1,923	336	80	65
	1977	52	4,352	23	3,981	646	164	106
Harper Woods	1972	207	9,560	58	7,699	3,266	714	476
	1977	132	14,825	63	13,818	5,908	1,306	647
Hartford	1972	33	983	14	708	129	29	32
	1977	32	920	9	637	100	17	15
Hastings	1972	84	2,934	43	2,474	602	146	233
	1977	106	3,735	41	2,945	762	176	131
Hazel Park	1972	127	21,871	69	21,318	4,629	2,456	420
	1977	150	43,554	77	42,489	11,510	1,766	687
Highland Park	1972	190	55,788	110	54,881	8,498	2,285	1,234
	1977	102	12,972	58	12,319	4,019	864	502

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Hillsdale	1972	109	3,365	51	2,717	769	175	187
	1977	109	5,017	43	3,971	1,298	314	195
Holland	1972	309	11,788	131	9,894	3,222	698	705
	1977	309	22,617	116	19,710	6,412	1,406	1,014
Holly	1972	63	2,634	29	2,086	641	145	109
	1977	66	2,511	20	1,518	450	103	70
Houghton	1972	51	2,272	18	1,814	508	122	138
	1977	60	3,683	27	3,306	821	198	172
Howell	1972	91	4,354	44	3,856	1,143	270	249
	1977	133	7,895	52	6,672	2,587	677	330
Hudson	1972	41	762	12	565	104	21	25
	1977	37	1,236	10	970	145	41	36
Hudsonville	1972	28	652	10	481	123	30	35
	1977	45	923	7	349	114	30	25
Huntington Woods	1972	73	2,616	14	2,055	683	148	96
	1977	92	4,773	15	3,418	1,120	262	94
Inkster	1972	139	5,027	54	4,198	1,238	259	211
	1977	128	10,563	54	9,369	2,563	575	296
Ionia	1972	69	2,293	33	1,923	536	105	103
	1977	87	4,213	35	3,338	739	174	155
Iron Mountain	1972	103	3,991	52	3,626	1,009	205	270
	1977	119	9,200	62	8,642	2,625	685	406
Iron River	1972	54	1,293	17	867	184	52	96
	1977	54	1,550	17	1,016	191	49	51
Ironwood	1972	95	3,449	50	2,984	647	214	272
	1977	81	3,830	44	3,281	951	202	128
Ishpeming	1972	67	1,899	27	1,459	326	76	99
	1977	56	3,196	27	2,854	890	209	152
Ithaca	1972	42	925	13	738	147	36	39
	1977	40	1,245	9	954	154	42	28
Jackson	1972	449	25,611	220	23,402	7,629	1,823	1,414
	1977	423	102,147	195	88,778	42,402	8,936	3,246

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Kalamazoo	1972	742	62,594	370	58,651	19,458	4,514	3,223
	1977	836	105,969	418	100,819	33,755	7,615	3,938
Keego Harbor	1972	21	1,127	19	735	179	30	41
	1977	33	1,276	14	1,061	290	59	38
Kentwood	1972	102	5,629	43	5,038	1,697	378	388
	1977	126	10,324	66	9,631	3,299	282	507
Kingsford	1972	36	1,297	20	1,083	283	73	98
	1977	24	368	8	223	55	19	13
Lake Orion	1972	61	1,140	19	735	179	30	41
	1977	79	3,050	26	2,363	625	137	103
L'Anse	1972	28	670	10	495	86	25	28
	1977	25	701	10	468	74	18	14
Lansing	1972	1,009	88,000	517	(D)	(D)	(D)	(D)
	1977	1,105	138,512	536	126,647	45,385	10,059	4,955
Lapeer	1972	80	3,416	46	3,162	1,271	294	188
	1977	129	4,971	42	4,039	1,416	320	163
Lathrup Village	1972	219	19,309	103	17,702	6,663	1,386	668
	1977	293	35,563	106	32,282	16,389	3,589	1,059
Laurim	1972	20	291	7	185	63	16	29
	1977	27	620	12	453	138	32	35
Lincoln Park	1972	256	15,573	139	14,301	4,694	1,114	843
	1977	239	24,371	128	22,683	7,902	1,724	899
Livonia	1972	540	76,315	239	73,091	19,346	3,858	2,231
	1977	740	111,128	331	104,785	32,165	6,393	3,102
Lowell	1972	33	1,111	15	929	281	64	58
	1977	28	1,020	13	912	295	74	44
Ludington	1972	89	3,288	46	2,718	731	152	161
	1977	131	5,369	56	4,359	1,159	269	190
Madison Hgts.	1972	206	26,834	118	26,053	12,437	2,956	1,527
	1977	250	55,822	129	54,320	26,239	5,790	2,146
Manistee	1972	98	3,273	19	1,146	349	108	103
	1977	111	5,771	41	4,964	1,314	312	216

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Manistique	1972	64	1,518	28	1,204	203	32	41
	1977	55	3,057	36	2,867	567	104	81
Marine City	1972	46	1,793	15	1,481	405	92	61
	1977	52	1,530	18	1,150	351	67	60
Marquette	1972	150	6,199	79	5,649	1,573	390	408
	1977	182	12,846	88	11,854	3,928	867	604
Marysville	1972	42	1,589	16	1,354	334	76	72
	1977	42	2,834	15	2,649	619	209	173
Marshall	1972	99	3,099	43	2,175	681	168	145
	1977	108	4,169	34	2,974	965	231	152
Mason	1972	86	2,187	28	1,621	494	110	77
	1977	111	7,815	39	6,283	1,620	303	171
Melvindale	1972	77	11,500	34	11,010	2,547	662	324
	1977	76	21,340	42	20,867	4,877	812	273
Menominee	1972	88	2,733	39	2,234	601	147	168
	1977	102	5,735	38	4,914	3,926	401	344
Midland	1972	297	31,245	133	29,727	9,675	2,335	1,398
	1977	375	28,784	128	26,434	9,742	2,126	1,251
Milan	1972	45	1,503	17	1,228	345	85	46
	1977	51	1,834	14	1,113	350	87	51
Milford	1972	38	1,475	16	1,301	442	102	71
	1977	62	2,715	17	2,059	511	121	105
Monroe	1972	242	11,793	112	10,435	3,376	739	656
	1977	216	23,146	94	21,832	5,759	1,258	765
Mount Clemens	1972	304	22,448	162	20,103	9,091	2,108	1,137
	1977	382	26,945	166	23,397	8,791	2,057	958
Mount Morris	1972	37	811	12	551	135	31	33
	1977	54	2,405	22	1,891	495	114	90
Mount Pleasant	1972	184	6,376	73	5,470	1,684	365	449
	1977	196	13,852	87	12,612	4,085	941	534
Muskegon	1972	372	19,438	168	17,304	6,258	1,395	1,059
	1977	294	25,333	147	23,627	8,208	1,954	916

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Muskegon Hgts.	1972	85	4,482	43	4,054	979	228	232
	1977	62	7,276	37	6,932	1,836	452	281
Munising	1972	42	844	15	(D)	(D)	(D)	(D)
	1977	53	1,350	17	871	145	36	33
Negaunee	1972	40	1,255	17	989	173	38	46
	1977	40	2,075	21	1,876	367	93	46
New Baltimore	1972	31	949	11	(D)	(D)	(D)	(D)
	1977	44	2,550	15	1,967	424	118	76
New Buffalo	1972	30	906	14	764	178	34	37
	1977	34	1,213	8	940	151	36	23
Niles	1972	205	8,020	78	6,696	1,989	489	507
	1977	209	9,898	75	8,576	2,667	631	554
North Muskegon	1972	31	867	13	711	276	53	55
	1977	45	2,610	17	2,213	783	193	142
Northville	1972	86	5,609	29	4,581	1,008	360	372
	1977	117	13,907	40	12,758	3,104	909	463
Norton Shores	1972	94	2,474	32	1,862	451	104	132
	1977	114	10,304	51	9,706	2,314	535	306
Norway	1972	13	287	4	217	54	10	11
	1977	18	500	6	407	83	24	16
Novi	1972	54	2,661	23	2,305	881	205	92
	1977	101	17,497	41	16,563	5,795	984	308
Oak Park	1972	348	41,843	152	39,487	15,238	3,195	1,776
	1977	361	69,642	136	65,948	27,020	5,915	2,699
Otsego	1972	30	623	15	522	106	23	26
	1977	33	801	12	638	210	51	59
Owosso	1972	153	6,877	68	6,007	1,683	377	291
	1977	180	9,738	74	8,581	2,735	644	358
Oxford	1972	42	1,109	15	893	299	78	49
	1977	63	2,726	22	2,332	796	208	112
Paw Paw	1972	48	2,008	30	1,877	661	145	122
	1977	58	3,674	32	3,237	949	219	138

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Petoskey	1972	121	5,237	64	4,619	1,324	300	296
	1977	161	10,139	76	8,935	2,754	624	337
Plainwell	1972	62	1,228	14	851	268	51	46
	1977	79	3,519	23	2,910	819	167	125
Pleasant Ridge	1972	35	1,511	11	1,294	288	86	84
	1977	36	755	7	396	154	36	30
Plymouth	1972	156	6,228	70	5,366	1,902	444	344
	1977	190	18,406	77	16,504	5,680	1,255	729
Pontiac	1972	443	30,673	233	28,218	9,008	2,208	1,509
	1977	383	47,957	201	45,791	16,268	3,763	1,418
Portage	1972	210	10,850	84	9,713	3,601	815	629
	1977	263	20,482	101	18,439	6,105	1,350	316
Port Huron	1972	341	17,268	160	15,387	5,355	1,233	997
	1977	354	23,301	147	20,516	6,806	1,640	935
Portland	1972	33	442	10	216	60	17	26
	1977	40	961	11	687	206	38	26
Richmond	1972	43	1,283	17	1,092	283	65	93
	1977	50	2,201	18	1,724	366	94	67
River Rouge	1972	54	1,588	26	1,357	331	89	69
	1977	48	4,615	25	4,284	1,596	355	133
Riverview	1972	52	4,925	23	4,699	2,146	468	213
	1977	53	12,684	30	12,381	4,048	992	275
Rochester	1972	134	5,409	56	4,650	1,526	313	274
	1977	107	9,570	55	8,706	2,853	573	318
Rockwood	1972	17	250	7	183	33	4	5
	1977	25	581	9	315	46	14	10
Rogers City	1972	44	860	19	650	98	32	42
	1977	57	1,562	21	1,109	212	53	36
Romeo	1972	55	1,480	16	1,146	341	69	47
	1977	70	2,861	25	2,144	568	125	68
Romulus	1972	104	11,419	49	10,880	3,284	765	666
	1977	137	29,756	72	28,817	8,160	1,653	891

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees[b] 12 March
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Roosevelt Park	1972	31	1,557	14	1,442	384	75	122
	1977	20	1,748	14	1,709	461	111	104
Roseville	1972	260	20,498	123	18,999	7,072	1,628	1,243
	1977	310	40,621	157	38,086	13,691	345	1,406
Royal Oak	1972	662	38,943	301	34,739	12,506	2,918	1,938
	1977	658	58,305	286	52,996	20,175	4,540	2,008
Saginaw	1972	572	45,400	305	42,268	13,821	3,255	2,176
	1977	541	53,482	278	50,048	17,941	4,236	2,065
St. Clair	1972	65	3,669	35	3,275	1,034	207	190
	1977	55	1,768	19	1,208	316	86	57
St. Clair Shores	1972	449	22,488	193	19,547	6,383	1,466	1,024
	1977	601	37,526	240	32,780	11,727	2,761	1,398
St. Ignace	1972	58	1,905	37	1,620	271	44	60
	1977	59	3,408	34	2,831	515	100	84
St. Johns	1972	85	1,660	27	(D)	(D)	(D)	(D)
	1977	84	2,505	25	1,728	466	110	75
St. Joseph	1972	174	12,963	80	11,858	3,994	948	912
	1977	212	18,737	90	17,026	7,209	1,680	1,019
St. Louis	1972	40	916	16	737	235	52	42
	1977	44	1,729	17	1,448	464	137	51
Saline	1972	36	921	17	782	226	53	68
	1977	64	1,528	15	1,024	226	57	38
Sault Ste. Marie	1972	166	5,721	75	5,067	1,313	281	287
	1977	176	9,713	88	8,461	2,536	527	386
Southfield	1972	1,101	232,889	593	224,311	64,433	14,957	6,943
	1977	1,738	417,530	1,015	401,632	149,669	33,790	13,696
Southgate	1972	129	11,631	62	10,959	2,582	694	606
	1977	156	34,295	75	32,958	13,199	2,984	943
South Haven	1972	66	2,828	35	2,521	682	161	128
	1977	81	9,445	31	8,334	1,067	221	113
South Lyon	1972	32	1,139	13	902	151	37	31
	1977	81	2,580	23	1,674	421	94	67

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Sparta	1972	52	1,066	18	584	161	41	49
	1977	49	1,628	20	1,303	302	72	60
Springfield	1972	42	1,240	12	952	307	82	53
	1977	35	2,372	13	2,212	620	134	74
Springlake	1972	62	2,423	17	1,978	503	102	153
	1977	76	5,857	28	4,687	1,392	292	230
Sterling Heights	1972	256	11,790	78	10,055	3,425	676	413
	1977	396	25,318	112	21,988	6,836	1,508	822
Sturgis	1972	125	5,275	49	4,535	1,433	343	293
	1977	125	6,881	54	6,073	1,795	407	279
Swartz Creek	1972	43	1,048	21	909	290	64	97
	1977	36	2,280	17	2,106	567	127	87
Taylor	1972	261	17,762	111	15,991	5,592	1,252	747
	1977	302	37,315	126	34,928	10,548	1,938	1,003
Tecumseh	1972	73	2,304	32	1,914	571	127	128
	1977	77	3,041	25	2,465	540	121	71
Three Rivers	1972	91	3,179	31	2,612	582	142	146
	1977	97	5,335	38	4,415	1,172	262	167
Traverse City	1972	262	17,784	153	16,776	5,042	1,089	893
	1977	410	32,130	180	29,187	9,555	2,148	1,288
Trenton	1972	118	6,065	49	5,427	1,320	347	229
	1977	108	6,727	47	5,937	2,169	512	289
Troy	1972	355	44,462	176	42,264	18,759	4,070	1,939
	1977	770	292,858	414	285,692	88,346	19,839	6,400
Utica	1972	88	3,926	36	3,216	956	204	150
	1977	110	6,819	50	6,004	1,680	411	191
Vassar	1972	44	747	13	509	109	21	28
	1977	40	1,016	10	735	189	44	30
Wakefield	1972	22	1,229	6	1,112	357	128	127
	1977	14	(D)	(D)	(D)	(D)	(D)	
Walker	1972	88	6,914	39	6,323	2,270	499	250
	1977	95	7,880	39	7,080	1,981	501	297

TABLE XXIII-8. SELECTED DATA FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN CITIES AND VILLAGES OF 2,500 INHABITANTS OR MORE: 1972 AND 1977 (cont.)

City	Year	All establishments[a]		Establishments with payroll				
						Payroll ($1,000)		Paid employees 12 March[b]
		Number	Sales ($1,000)	Number	Sales ($1,000)	Entire year	First quarter	
Walled Lake	1972	35	1,412	18	1,224	301	77	103
	1977	27	13,426	9	(D)	(D)	(D)	(D)
Warren	1972	793	64,739	392	60,440	23,925	5,358	3,018
	1977	926	136,808	438	128,512	50,827	11,224	4,669
Wayne	1972	122	9,807	72	9,192	3,120	711	550
	1977	112	18,004	68	17,395	5,972	1,359	609
Westland	1972	323	14,277	128	12,177	3,498	775	666
	1977	355	23,002	143	19,750	6,211	1,412	787
Whitehall	1972	42	1,202	18	977	209	56	65
	1977	47	1,304	14	1,097	273	71	63
Williamston	1972	44	1,150	14	(D)	(D)	(D)	(D)
	1977	111	7,815	39	6,283	1,620	303	171
Woodhaven	1972	16	(D)	4	(D)	(D)	(D)	(D)
	1977	20	3,100	8	2,949	875	211	145
Wolverine Lake	1972	8	142	2	(D)	(D)	(D)	(D)
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Wyandotte	1972	198	9,326	109	8,379	2,801	962	557
	1977	216	13,102	103	11,360	3,719	857	536
Wyoming	1972	331	23,406	161	21,802	6,359	1,512	1,096
	1977	396	43,667	178	39,933	12,134	2,992	1,585
Ypsilanti	1972	230	14,819	94	13,411	5,073	1,220	836
	1977	239	15,101	89	13,446	5,476	1,292	565
Zeeland	1972	40	1,825	19	1,591	375	80	79
	1977	62	2,678	23	2,277	662	164	120

SOURCE: Bureau of the Census, 1972 Census of Selected Service Industries, Area Series, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, 1977 Census of Service Industries, Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7.

a. Excludes direct selling establishments without payroll in 1977.

b. Week including 12 March.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-9. NUMBER OF ESTABLISHMENTS OPERATED BY MAJOR LODGINGS CHAINS OR FRANCHISORS IN MICHIGAN: 1979

Name	Number
Holiday Inn	49
Best Western	33
Ramada Inns	16
Howard Johnsons	14
Red Roof Inns	13
Hilton	10

SOURCE: The various companies.

TABLE XXIII-10. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA RECEIPTS BY SELECTED SERVICE ESTABLISHMENTS: 1977

County	1972	1977	County	1972	1977
Oakland	808	1,565	Schoolcraft	246	327
Mackinac	754	1,184	Delta	246	317
Emmet	739	1,038	Houghton	195	315
Washtenaw	519	982	Monroe	164	311
Grand Traverse	523	957	Sanilac	246	307
Otsego	597	936	Clare	266	294
Jackson	280	873	Marquette	166	291
Macomb	321	779	Kalkaska	127	286
Wayne	690	770	Allegan	208	286
Kent	502	755	Hillsdale	143	283
Kalamazoo	425	724	Luce	167	282
Ingham	448	707	St. Joseph	241	269
Wexford	364	604	Eaton	152	263
Charlevoix	476	574	Iosco	167	262
Ogemaw	251	564	Menominee	145	258
Crawford	515	533	Clinton	142	247
Alpena	220	508	Montmorency	185	245
Saginaw	343	497	Gratiot	172	244
Antrim	390	484	Osceola	107	231
Livingston	226	481	Huron	177	227
Berrien	357	474	Cass	117	217
Benzie	257	471	Oceana	135	217
Van Buren	273	470	Alger	192	217
Cheboygan	321	455	Baraga	128	215
Genesee	310	450	Arenac	182	212
Leelanau	442	448	Shiawassee	133	212
St. Clair	278	437	Lapeer	150	210
Midland	491	436	Lake	128	207
Dickinson	268	426	Mecosta	149	198
Calhoun	313	420	Keweenaw	253	194
Gogebic	252	416	Ionia	128	190
Ottawa	236	405	Presque Isle	138	189
Branch	226	394	Alcona	180	186
Bay	239	386	Ontonagon	136	185
Muskegon	237	370	Montcalm	160	178
Iron	258	370	Gladwin	130	170
Manistee	234	368	Barry	125	149
Mason	263	362	Oscoda	158	145
Roscommon	375	358	Missaukee	82	141
Lenawee	251	345	Tuscola	104	141
Chippewa	216	331	Newaygo	122	121
Isabella	202	329	Michigan	471	698
			United States	543	830

SOURCE: Developed from U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5, Census of Service Industries, 1977, Advance Report, Geographic Area Statistics, Summary Statistics for the United States (Washington, D.C.: 1980), SC77-A-52(A), Census of Selected Service Industries, 1972, Area Statistics, United States (Washington, D.C.: 1975), SC72-A-52, Table 3; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-11. RANKING OF MICHIGAN COUNTIES ACCORDING TO RECEIPTS BY SELECTED SERVICE ESTABLISHMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Mackinac	22.85	22.61	Bay	5.76	5.56
Emmet	18.23	16.43	Midland	10.08	5.49
Otsego	16.62	16.10	Genesee	6.42	5.47
Oakland	13.00	16.08	Lenawee	5.69	5.16
Grand Traverse	11.84	13.87	Iosco	4.69	5.13
Jackson	6.06	12.68	Marquette	4.58	5.04
Ogemaw	8.31	12.22	Osceola	3.49	5.03
Washtenaw	10.35	12.20	Menominee	4.52	5.01
Crawford	16.47	10.90	Montmorency	5.63	5.01
Kent	10.80	10.69	Alger	6.38	5.00
Wexford	10.74	10.48	Allegan	5.63	4.98
Charlevoix	12.89	10.13	Schoolcraft	5.68	4.95
Kalamazoo	9.25	9.69	Mecosta	5.48	4.93
Macomb	6.16	9.47	Luce	5.11	4.90
Ingham	9.37	9.29	Lake	4.15	4.80
Wayne	13.33	9.24	Sanilac	5.96	4.78
Antrim	11.30	8.97	Hillsdale	3.67	4.68
Cheboygan	9.57	8.86	Monroe	3.74	4.54
St. Clair	8.83	8.83	Oceana	4.12	4.33
Alpena	6.04	8.76	Keweenaw	8.38	4.25
Benzie	6.71	8.49	Baraga	3.50	4.23
Van Buren	7.21	8.04	St. Joseph	5.55	4.06
Gogebic	7.06	7.72	Presque Isle	4.51	4.02
Roscommon	11.02	7.70	Alcona	6.19	3.97
Leelanau	11.31	7.25	Ontonagon	3.97	3.95
Livingston	5.20	7.21	Gratiot	4.12	3.83
Berrien	7.67	7.04	Clinton	3.18	3.83
Chippewa	6.61	6.99	Arenac	5.48	3.78
Iron	8.08	6.98	Eaton	3.33	3.76
Mason	7.27	6.87	Huron	4.67	3.76
Isabella	6.43	6.68	Shiawassee	3.49	3.72
Saginaw	7.41	6.56	Oscoda	5.75	3.62
Houghton	6.54	6.54	Gladwin	4.03	3.62
Manistee	6.67	6.52	Ionia	3.75	3.50
Dickinson	6.84	6.50	Cass	2.65	3.31
Clare	8.47	6.16	Lapeer	3.62	3.29
Kalkaska	4.21	6.15	Missaukee	2.69	3.20
Ottawa	5.32	6.10	Montcalm	4.38	3.17
Branch	6.04	6.07	Barry	3.27	2.64
Muskegon	5.87	6.00	Newaygo	3.38	2.42
Delta	7.13	5.86	Tuscola	2.61	2.21
Calhoun	6.56	5.63	Michigan	9.80	9.20
			United States	12.08	11.81

SOURCE: Developed from U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5, Census of Service Industries, 1977, Advance Report, Geographic Area Statistics, Summary Statistics for the United States (Washington, D.C.: 1980), SC77-A-52(A), Census of Selected Service Industries, 1972, Area Statistics, United States (Washington, D.C.: 1975), SC72-A-52, Table 3; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-12. RANKING OF MICHIGAN COUNTIES ACCORDING TO NUMBER OF INHABITANTS PER SELECTED SERVICE ESTABLISHMENT: 1977

County	1972	1977	County	1972	1977
Monroe	234	218	Alcona	116	138
Clinton	181	196	Lenawee	138	137
Genesee	193	191	Kalkaska	127	136
Barry	178	191	Ontonagon	154	136
Marquette	199	189	Branch	162	135
Wayne	177	189	Dickinson	140	135
Mecosta	204	188	Kalamazoo	153	134
Newaygo	157	187	Iosco	118	133
Isabella	185	186	Chippewa	123	133
Saginaw	196	186	Berrien	139	131
St. Joseph	174	178	Ingham	154	129
Bay	172	178	Presque Isle	143	128
Cass	176	178	Alpena	139	128
Muskegon	175	178	Gogebic	129	126
Tuscola	198	178	Huron	140	126
Missaukee	179	177	Mason	133	124
Lapeer	211	175	Clare	130	124
Macomb	202	174	Iron	126	123
Livingston	183	173	Ogemaw	118	122
Gladwin	156	172	Lake	116	118
Eaton	168	170	Oscoda	96	116
Ionia	179	169	Luce	109	116
Baraga	160	168	Alger	99	115
Sanilac	157	163	Keweenaw	115	114
Calhoun	162	161	Manistee	119	114
Van Buren	162	160	Antrim	111	110
Jackson	159	160	Washtenaw	139	109
Ottawa	182	158	Wexford	124	104
Houghton	169	156	Oakland	126	103
Allegan	162	156	Charlevoix	104	101
Montcalm	153	155	St. Clair	88	100
Hillsdale	156	154	Crawford	83	99
Gratiot	169	152	Benzie	94	96
Menominee	164	151	Leelanau	93	94
Midland	202	150	Otsego	92	91
Arenac	152	149	Montmorency	86	90
Oceana	151	143	Cheboygan	77	84
Kent	152	142	Grand Traverse	96	78
Schoolcraft	138	142	Emmet	78	78
Delta	143	141	Mackinac	52	70
Osceola	168	141	Roscommon	48	64
Shiawassee	155	138	Michigan	161	151
			United States	131	118

SOURCE: Developed from U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5, Census of Service Industries, 1977, Advance Report, Geographic Area Statistics, Summary Statistics for the United States (Washington, D.C.: 1980), SC77-A-52(A), Census of Selected Service Industries, 1972, Area Statistics, United States (Washington, D.C.: 1975), SC72-A-52, Table 3; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-13. RANKING OF MICHIGAN COUNTIES ACCORDING TO RECEIPTS PER SELECTED SERVICE ESTABLISHMENTS: 1977

County	1972	1977	County	1972	1977
Oakland	$102,000	$161,881	Mason	$34,864	$44,921
Wayne	122,042	145,157	Delta	35,119	44,848
Jackson	44,547	139,362	Eaton	25,533	44,670
Macomb	64,691	135,510	Allegan	33,682	44,489
Washtenaw	71,901	107,401	Chippewa	26,647	43,828
Kent	76,564	106,866	St. Clair	24,323	43,656
Kalamazoo	64,821	97,252	Hillsdale	22,391	43,451
Saginaw	67,067	92,175	Manistee	27,725	41,922
Ingham	68,713	91,189	Leelanau	41,293	41,863
Genesee	59,960	85,934	Kalkaska	16,020	38,889
Otsego	54,929	85,261	Menominee	23,822	38,782
Livingston	41,268	83,116	Cass	20,602	38,688
Mackinac	39,025	82,503	Cheboygan	24,780	38,104
Emmet	57,418	80,538	Mecosta	30,293	37,222
Van Buren	44,215	75,079	Gratiot	29,068	36,954
Grand Traverse	50,192	74,766	Lapeer	31,751	36,762
Ogemaw	29,528	69,008	Clare	34,525	36,432
Bay	41,192	68,743	Baraga	20,604	36,100
Calhoun	50,823	67,733	Iosco	19,632	34,743
Monroe	38,513	67,653	Luce	18,101	32,730
Muskegon	41,526	65,942	Osceola	18,041	32,535
Midland	99,174	65,216	Ionia	22,868	32,179
Alpena	30,629	64,805	Arenac	27,658	31,736
Ottawa	43,067	63,981	Oceana	20,346	30,946
Wexford	45,169	62,944	Shiawassee	20,629	29,323
Berrien	49,593	62,008	Gladwin	20,404	29,272
Isabella	37,350	61,405	Huron	24,714	28,589
Charlevoix	49,677	57,656	Barry	22,313	28,333
Dickinson	37,474	57,548	Montcalm	24,454	27,625
Marquette	33,135	55,114	Alcona	20,814	25,606
Antrim	43,459	53,386	Ontonagon	21,000	25,099
Branch	36,558	53,202	Tuscola	20,559	25,010
Crawford	42,905	52,750	Alger	18,976	24,965
Gogebic	32,484	52,531	Missaukee	14,605	24,943
Sanilac	38,673	50,090	Lake	14,855	24,550
Houghton	32,972	49,113	Presque Isle	19,848	24,264
Clinton	25,612	48,451	Roscommon	18,118	22,835
St. Joseph	42,027	48,056	Newaygo	19,114	22,555
Lenawee	34,694	47,163	Keweenaw	29,100	22,190
Schoolcraft	33,907	46,358	Montmorency	15,970	22,111
Benzie	24,021	45,355	Oscoda	15,167	16,818
Iron	32,545	45,345	Michigan	75,910	105,513
			United States	71,039	97,843

SOURCE: Developed from U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5, Census of Service Industries, 1977, Advance Report, Geographic Area Statistics, Summary Statistics for the United States (Washington, D.C.: 1980), SC77-A-52(A), Census of Selected Service Industries, 1972, Area Statistics, United States (Washington, D.C.: 1975), SC72-A-52, Table 3; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXIII-14. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1977 AND 1978

County	Labor and proprietors' earnings in services			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Emmet	29.50	29,439	29.17	32,516
Leelanau	23.40	6,902	23.00	7,714
Crawford	19.93	6,046	22.83	6,870
Oakland	20.29	1,351,634	20.59	1,576,833
Grand Traverse	19.31	56,048	20.59	66,668
Lake	31.07	2,413	17.77	2,160
Benzie	16.51	5,109	17.42	6,175
Mackinac	22.63	6,227	16.68	7,594
Wexford	16.54	16,737	16.30	18,484
Kalamazoo	15.20	201,836	15.74	235,169
Houghton	13.88	16,122	15.47	18,139
Jackson	(D)	(D)	15.43	138,840
Clare	14.63	7,287	15.28	8,387
Kent	15.52	413,086	15.13	475,014
Gratiot	13.79	26,290	15.00	28,522
Gladwin	14.76	5,082	14.86	5,518
Baraga	8.01	3,759	14.48	4,655
Cheboygan	13.90	8,681	14.47	10,426
Keweenaw	10.05	569	14.01	730
Otsego	14.49	9,173	14.00	10,366
Bay	13.95	72,062	13.96	81,172
Ingham	12.71	308,006	13.77	355,006
Wayne	13.88	2,614,584	13.70	2,895,895
Shiawassee	12.32	26,000	13.42	29,276
St. Clair	13.10	64,161	13.00	72,972
Chippewa	8.82	10,337	12.89	12,365
Delta	12.84	18,569	12.89	21,446
Washtenaw	12.59	256,682	12.88	315,632
Ogemaw	12.85	5,007	12.87	5,843
Berrien	11.82	113,394	12.78	126,332
Calhoun	11.78	108,000	12.70	123,667
Livingston	12.72	25,977	12.49	30,287
Muskegon	12.31	97,091	12.33	109,614
Isabella	13.32	22,434	12.24	24,958
Eaton	11.26	18,401	11.89	21,674

TABLE XXIII-14. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in services			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Lenawee	11.14	45,527	11.73	52,239
Montcalm	11.72	19,295	11.65	21,306
Marquette	12.06	41,123	11.57	47,767
Newaygo	12.46	9,165	11.27	10,399
Arenac	9.89	3,592	11.14	4,012
Mason	11.23	10,516	11.06	11,866
Monroe	11.71	44,223	10.97	50,787
Ottawa	10.57	72,307	10.86	85,612
Macomb	10.40	411,499	10.82	483,897
Van Buren	10.18	18,529	10.74	22,571
Saginaw	11.00	166,619	10.66	184,471
Huron	12.41	16,100	10.47	17,533
Alcona	9.16	1,521	10.28	1,730
Alger	10.36	2,624	10.14	2,961
Roscommon	10.06	3,451	10.08	3,900
Oceana	10.69	5,102	10.03	5,317
Barry	9.94	10,653	9.99	12,507
Alpena	10.74	13,867	9.89	16,039
Midland	9.66	51,675	9.88	59,216
Mecosta	9.80	7,973	9.69	9,745
Genesee	8.85	324,787	9.68	375,665
Allegan	9.88	21,461	9.49	24,242
Cass	9.46	13,230	9.25	15,368
Manistee	9.30	7,639	9.14	8,801
Sanilac	10.19	11,673	9.02	13,256
Hillsdale	8.16	13,469	8.86	15,436
Oscoda	8.09	1,094	8.65	1,263
Clinton	9.59	8,669	8.57	9,758
Tuscola	8.87	14,175	8.55	16,459
Lapeer	8.54	15,815	8.49	18,175
Schoolcraft	7.66	2,482	8.45	2,697
Iosco	7.35	7,888	7.58	8,959
Ionia	7.80	12,025	7.37	13,694
Osceola	7.37	3,860	7.07	4,252
Branch	(D)	(D)	6.82	14,461

TABLE XXIII-14. LABOR AND PROPRIETORS' EARNINGS IN SERVICES IN MICHIGAN, BY COUNTY: 1977 AND 1978 (cont.)

County	Labor and proprietors' earnings in services			
	1977		1978	
	As a percentage of total labor and proprietors' earnings	Total ($000)	As a percentage of total labor and proprietors' earnings	Total ($000)
Missaukee	8.50	1,361	6.74	1,466
Menominee	6.46	5,670	6.60	6,409
St. Joseph	6.36	15,301	6.42	17,337
Kalkaska	4.37	1,564	4.98	1,940
Montmorency	4.96	930	4.93	1,002
Ontonagon	3.24	1,773	4.54	2,312
Antrim	11.11	5,093	(D)	(D)
Charlevoix	12.93	9,620	(D)	(D)
Dickinson	(D)	(D)	(D)	(D)
Gogebic	16.68	8,583	(D)	(D)
Iron	(D)	(D)	(D)	(D)
Luce	(D)	(D)	(D)	(D)
Presque Isle	(D)	(D)	(D)	(D)
Michigan	13.53	7,554,129	13.72	8,619,970
United States	16.63	194,692,000	16.30	221,951,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Counties are ranked according to this sector's relative contribution to total labor and proprietors' earnings (next-to-last column). These numbers pertain to earnings generated within the county, irrespective of the residence of the people who received them. For a complete tabulation of earnings at the state level, see Table VI-2 and VI-3. The earnings residence adjustment for all industries is shown in Table VI-12.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-15. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN SERVICES: 1977-1978

County	Percentage change 1973-1978	Percentage change 1977-1978	County	Percentage change 1973-1978	Percentage change 1977-1978
Ontonagon	80	30	Otsego	79	13
Keweenaw	(D)	28	Bay	64	13
Kalkaska	116	24	St. Joseph	48	13
Baraga	92	24	Clinton	48	13
Washtenaw	109	23	Allegan	66	13
Mecosta	71	22	Menominee	26	13
Van Buren	72	22	Muskegon	59	13
Mackinac	57	22	Roscommon	45	13
Benzie	57	21	Mason	54	13
Cheboygan	3[illegible]	20	Shiawassee	64	13
Chippewa	90	20	Newaygo	57	13
Grand Traverse	97	19	Alger	61	13
Macomb	97	18	Houghton	78	13
Eaton	71	18	Leelanau	66	12
Ottawa	69	18	Arenac	46	12
Oakland	98	17	Saginaw	66	11
Ogemaw	80	17	Berrien	64	11
Livingston	102	17	Isabella	68	11
Barry	55	17	Wayne	51	11
Kalamazoo	95	17	Wexford	84	10
Alpena	65	16	Oscoda	68	10
Cass	91	16	Montcalm	59	10
Tuscola	62	16	Emmet	76	10
Genesee	76	16	Gladwin	84	9
Marquette	90	16	Huron	48	9
Manistee	79	15	Schoolcraft	53	9
Clare	67	15	Montmorency	72	8
Lapeer	63	15	Missaukee	27	8
Midland	104	15	Gratiot	67	8
Monroe	66	15	Oceana	52	4
Hillsdale	76	15	Lake	-40	-10
Ingham	81	15	Antrim	(D)	(D)
Kent	70	15	Branch	74	(D)
Calhoun	64	15	Charlevoix	(D)	(D)
Delta	67	15	Dickinson	(D)	(D)
Lenawee	54	15	Gogebic	(D)	(D)
Oscoda	45	15	Iron	(D)	(D)
Sanilac	53	14	Jackson	76	(D)
St. Clair	71	14	Luce	(D)	(D)
Ionia	57	14	Presque Isle	(D)	(D)
Crawford	88	14			
Iosco	66	14	Michigan	71	14
Alcona	40	14	United States	74	14

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-16. NUMBER OF ESTABLISHMENTS AND SALES, AUTOMOTIVE REPAIR SERVICES AND GARAGES IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments		Total receipts		County	Number of establishments		Total receipts	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	9	11	131	(D)	Gladwin	11	15	167	262
Alger	11	9	452	289	Gogebic	16	17	404	(D)
Allegan	55	71	1,670	4,553	Grand Traverse	42	56	2,452	4,468
Alpena	26	34	1,034	2,183	Gratiot	33	41	1,279	2,488
Antrim	13	14	606	809	Hillsdale	32	36	726	2,213
Arenac	10	11	311	317	Houghton	22	19	675	644
Baraga	5	4	(D)	(D)	Huron	28	29	509	1,072
Barry	38	38	985	1,680	Ingham	160	174	14,489	31,226
Bay	91	94	5,104	7,239	Ionia	42	43	846	1,492
Benzie	5	6	144	316	Iosco	16	20	471	873
Berrien	133	152	6,691	13,791	Iron	13	14	259	290
Branch	35	40	3,278	3,896	Isabella	34	40	968	1,860
Calhoun	81	103	5,619	10,207	Jackson	76	92	3,380	(D)
Cass	28	29	477	1,831	Kalamazoo	132	143	10,479	21,346
Charlevoix	10	14	365	467	Kalkaska	4	10	73	284
Cheboygan	11	12	268	419	Kent	329	399	35,194	57,198
Chippewa	13	25	290	627	Keweenaw	n.a.	n.a.	n.a.	n.a.
Clare	17	28	567	859	Lake	2	2	(D)	(D)
Clinton	34	33	1,262	1,677	Lapeer	27	46	1,954	2,392
Crawford	4	4	104	410	Leelanau	5	9	435	476
Delta	24	28	933	898	Lenawee	80	88	3,106	6,996
Dickinson	20	24	1,406	3,087	Livingston	32	53	2,273	18,100
Eaton	41	44	1,587	2,637	Luce	5	4	98	160
Emmet	16	26	1,090	2,074	Mackinac	7	8	127	461
Genesee	272	285	22,136	36,156	Macomb	330	429	34,253	75,663

TABLE XXIII-16. NUMBER OF ESTABLISHMENTS AND SALES, AUTOMOTIVE REPAIR SERVICES AND GARAGES IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977	County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977
Manistee	17	18	353	905	Presque Isle	14	12	407	377
Marquette	33	52	1,271	3,388	Roscommon	12	18	196	771
Mason	11	20	378	1,427	Saginaw	122	126	8,405	19,330
Mecosta	17	18	664	1,002	St. Clair	104	98	4,320	8,115
Menominee	24	39	726	1,614	St. Joseph	42	44	1,976	3,371
Midland	31	49	2,134	(D)	Sanilac	32	35	958	2,114
Missaukee	4	5	107	(D)	Schoolcraft	8	9	329	(D)
Monroe	72	82	2,940	6,146	Shiawassee	47	54	1,410	2,652
Montcalm	33	32	1,329	1,330	Tuscola	34	40	630	951
Montmorency	6	15	86	295	Van Buren	38	53	1,338	2,746
Muskegon	106	123	5,561	11,150	Washtenaw	114	160	8,725	16,565
Newaygo	20	16	562	611	Wayne	1,679	1,604	191,423	327,482
Oakland	463	606	56,242	208,792	Wexford	16	30	1,166	1,845
Oceana	17	21	587	953					
Ogemaw	15	16	365	675	TOTAL	5,745	6,487	473,954	980,956
Ontonagon	3	7	11	181					
Osceola	16	20	439	708					
Oscoda	1	6	(D)	62					
Otsego	6	10	173	1,061					
Ottawa	108	123	7,338	14,672					

SOURCE: Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-17. NUMBER OF ESTABLISHMENTS AND SALES IN THE LODGINGS INDUSTRY IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments		Total receipts		County	Number of establishments		Total receipts	
	1972	1977	1972	1977		1972	1977	1972	1977
Alcona	22	15	304	(D)	Gladwin	11	7	294	272
Alger	39	32	426	(D)	Gogebic	40	38	1,213	3,468
Allegan	56	46	1,247	(D)	Grand Traverse	86	73	6,410	(D)
Alpena	44	28	1,257	2,117	Gratiot	12	6	434	(D)
Antrim	44	22	3,300	(D)	Hillsdale	19	15	374	503
Arenac	15	12	355	757	Houghton	30	30	1,613	2,255
Baraga	10	7	113	239	Huron	36	26	996	(D)
Barry	24	16	550	584	Ingham	32	36	10,817	11,315
Bay	29	25	1,468	5,491	Ionia	23	12	681	979
Benzie	31	35	804	2,494	Iosco	76	56	1,316	1,641
Berrien	77	63	7,049	(D)	Iron	22	23	487	672
Branch	22	21	518	(D)	Isabella	11	6	(D)	(D)
Calhoun	35	29	4,946	4,613	Jackson	34	27	3,320	5,197
Cass	24	19	472	634	Kalamazoo	43	34	5,564	12,626
Charlevoix	40	38	4,738	(D)	Kalkaska	13	14	270	846
Cheboygan	106	104	2,720	(D)	Kent	76	61	12,548	18,135
Chippewa	112	90	2,134	3,485	Keweenaw	16	16	567	(D)
Clare	20	18	1,644	1,947	Lake	22	23	349	368
Clinton	17	9	312	184	Lapeer	8	11	300	(D)
Crawford	26	27	1,636	(D)	Leelanau	38	36	2,154	3,150
Delta	43	33	2,206	3,138	Lenawee	22	18	1,075	(D)
Dickinson	26	23	1,724	2,408	Livingston	21	19	2,756	(D)
Eaton	8	8	348	1,050	Luce	29	16	502	776
Emmet	77	51	8,124	(D)	Mackinac	133	94	6,060	10,073
Genesee	60	45	6,962	(D)	Macomb	61	66	8,951	11,959

TABLE XXIII-17. NUMBER OF ESTABLISHMENTS AND SALES IN THE LODGINGS INDUSTRY IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977	County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977
Manistee	40	36	1,967	2,772	Presque Isle	14	15	(D)	319
Marquette	51	49	2,158	(D)	Roscommon	113	93	1,578	1,871
Mason	42	34	1,502	2,985	Saginaw	32	29	7,144	9,552
Mecosta	16	18	742	1,445	St. Clair	54	38	4,315	3,297
Menominee	18	5	330	(D)	St. Joseph	38	34	1,334	(D)
Midland	14	11	2,704	(D)	Sanilac	19	19	296	(D)
Missaukee	8	3	103	260	Schoolcraft	45	35	1,123	1,266
Monroe	29	24	2,376	3,319	Schiawassee	9	10	965	(D)
Montcalm	26	19	453	549	Tuscola	12	8	219	(D)
Montmorency	21	14	307	149	Van Buren	33	31	1,366	1,570
Muskegon	57	42	3,241	4,410	Washtenaw	42	31	10,373	19,804
Newaygo	32	17	417	469	Wayne	358	268	70,312	112,399
Oakland	131	111	25,266	67,857	Wexford	31	23	2,329	3,467
Oceana	14	21	547	855					
Ogemaw	19	21	296	631	TOTAL	3,376	2,739	278,052	452,557
Ontonagon	27	22	848	(D)					
Osceola	6	10	112	(D)					
Oscoda	17	13	288	227					
Otsego	43	28	2,271	(D)					
Ottawa	44	28	4,434	5,063					

SOURCE: Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-18. NUMBER OF ESTABLISHMENTS AND SALES, LEGAL SERVICES ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977

County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977	County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977
Alcona	3	2	(D)	(D)	Gladwin	6	1	126	(D)
Alger	1	2	(D)	(D)	Gogebic	8	11	414	586
Allegan	13	12	961	(D)	Grand Traverse	25	46	1,701	4,491
Alpena	15	12	696	825	Gratiot	12	13	629	1,120
Antrim	7	9	318	(D)	Hillsdale	8	10	606	(D)
Arenac	4	4	104	116	Houghton	11	13	1,725	3,298
Baraga	1	3	(D)	(D)	Huron	13	18	565	898
Barry	8	8	456	(D)	Ingham	150	217	14,345	(D)
Bay	42	44	3,015	(D)	Ionia	7	9	476	(D)
Benzie	4	6	130	(D)	Iosco	6	11	213	762
Berrien	62	76	5,622	8,292	Iron	4	7	117	(D)
Branch	11	13	657	(D)	Isabella	14	14	960	(D)
Calhoun	64	57	3,530	(D)	Jackson	56	60	4,423	6,885
Cass	11	12	881	(D)	Kalamazoo	95	131	11,377	18,140
Charlevoix	7	8	319	(D)	Kalkaska	2	4	(D)	(D)
Cheboygan	9	13	280	905	Kent	160	192	21,822	(D)
Chippewa	7	11	370	(D)	Keweenaw	n.a.	n.a.	n.a.	n.a.
Clare	7	6	624	(D)	Lake	2	2	(D)	(D)
Clinton	15	15	1,062	(D)	Lapeer	12	20	855	1,637
Crawford	4	6	105	(D)	Leelanau	7	11	355	496
Delta	12	12	1,138	1,832	Lenawee	30	31	1,849	2,757
Dickinson	9	8	343	462	Livingston	23	34	1,457	2,562
Eaton	22	26	717	1,209	Luce	3	5	73	(D)
Emmet	17	21	808	1,399	Mackinac	4	3	269	(D)
Genesee	196	239	13,586	20,772	Macomb	231	371	14,875	24,990

TABLE XXIII-18. NUMBER OF ESTABLISHMENTS AND SALES, LEGAL SERVICES ESTABLISHMENTS IN MICHIGAN, BY COUNTY: 1972 AND 1977 (cont.)

County	Number of establishments 1972	Number of establishments 1977	Total receipts 1972	Total receipts 1977
Manistee	8	10	300	(D)
Marquette	24	32	1,372	3,383
Mason	6	17	419	706
Mecosta	11	8	584	(D)
Menominee	6	8	254	498
Midland	25	24	1,720	2,433
Missaukee	3	3	(D)	68
Monroe	27	46	1,741	2,832
Montcalm	9	10	460	739
Montmorency	3	3	97	(D)
Muskegon	51	47	5,838	8,690
Newaygo	8	19	524	733
Oakland	887	1,384	60,530	146,587
Oceana	7	8	266	360
Ogemaw	4	6	254	(D)
Ontonagon	2	3	(D)	109
Osceola	5	6	129	306
Oscoda	2	2	(D)	(D)
Otsego	8	10	334	1,045
Ottawa	14	22	1,398	(D)
Presque Isle	3	6	59	(D)
Roscommon	8	9	202	286
Saginaw	118	123	10,934	13,904
St. Clair	49	45	2,875	3,541
St. Joseph	10	10	695	1,095
Sanilac	9	12	588	991
Schoolcraft	4	4	153	(D)
Shiawassee	28	22	2,018	2,022
Tuscola	7	13	418	1,046
Van Buren	24	23	1,537	2,012
Washtenaw	143	191	11,930	14,657
Wayne	1,762	1,564	186,392	215,451
Wexford	8	13	510	(D)
TOTAL	4,723	5,562	409,845	622,848

SOURCE: Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 7.

(D): Withheld to avoid disclosing data for individual companies.

TABLE XXIII-19. NUMBER OF LICENSES ISSUED FOR COSMETOLOGISTS, MANICURISTS, ELECTROLOGISTS, AND COSMETOLOGY SALONS IN MICHIGAN, BY COUNTY: 24 AUGUST 1978

County	Cosmetologists	Manicurists	Electrologists	Salons
Alcona	57	1	--	15
Alger	37	--	--	11
Allegan	412	--	1	111
Alpena	202	--	2	53
Antrim	98	--	--	30
Arenac	81	--	--	23
Baraga	40	--	--	13
Barry	210	--	--	71
Bay	785	1	4	171
Benzie	58	--	1	16
Berrien	994	1	5	302
Branch	246	--	3	53
Calhoun	787	1	2	171
Cass	198	--	--	65
Charlevoix	110	--	1	29
Cheboygan	102	1	--	34
Chippewa	147	--	1	45
Clare	116	--	--	35
Clinton	303	--	--	56
Crawford	51	--	--	13
Delta	226	--	--	72
Dickinson	133	--	--	49
Eaton	410	3	1	95
Emmet	126	2	--	29
Genesee	2,460	38	13	433
Gladwin	124	--	1	28
Gogebic	105	--	--	29
Grand Traverse	303	4	2	73
Gratiot	274	--	1	63
Hillsdale	261	--	1	81
Houghton	121	--	--	41
Huron	225	1	--	78
Ingham	1,335	10	7	305
Ionia	288	--	--	77
Iosco	144	1	1	35
Iron	60	--	--	25
Isabella	244	1	--	56
Jackson	973	2	4	201
Kalamazoo	970	5	2	234
Kalkaska	61	1	--	13
Kent	2,228	10	5	500
Keweenaw	7	--	--	4
Lake	37	--	--	17
Lapeer	381	2	2	71

TABLE XXIII-19. NUMBER OF LICENSES ISSUED FOR COSMETOLOGISTS, MANICURISTS, ELECTROLOGISTS, AND COSMETOLOGY SALONS IN MICHIGAN, BY COUNTY: 24 AUGUST 1978 (cont.)

County	Cosmetologists	Manicurists	Electrologists	Salons
Leelanau	65	--	--	19
Lenawee	663	1	2	151
Livingston	482	2	5	67
Luce	31	--	--	13
Mackinac	41	--	--	19
Macomb	5,346	92	19	409
Manistee	137	--	--	37
Marquette	285	--	1	74
Mason	129	--	1	40
Mecosta	144	--	1	35
Menominee	107	--	--	49
Midland	318	1	--	82
Missaukee	52	--	--	17
Monroe	633	4	3	107
Montcalm	308	--	--	84
Montmorency	62	--	1	19
Muskegon	958	4	3	259
Newaygo	184	--	1	60
Oakland	5,874	362	72	768
Oceana	149	--	--	47
Ogemaw	94	--	--	33
Ontonagon	45	--	--	22
Osceola	111	--	1	35
Oscoda	37	1	--	12
Otsego	79	--	1	16
Ottawa	908	2	2	185
Presque Isle	92	--	--	19
Roscommon	115	--	--	32
Saginaw	1,201	5	3	213
Sanilac	297	1	--	79
Schoolcraft	46	--	--	10
Shiawassee	445	2	2	98
St. Clair	843	4	1	163
St. Joseph	317	1	10	91
Tuscola	396	--	1	110
Van Buren	361	--	2	90
Washtenaw	1,070	12	14	179
Wayne	13,611	290	111	1,967
Wexford	128	--	--	38
Out of state	2,728	29	17	2
Foreign	121	1	1	--
Bad County Codes	--	--	--	1
TOTAL	55,543	899	335	9,677

SOURCE: Michigan Department of Licensing and Regulation, special release.

TABLE XXIII-20. NUMBER OF LICENSES ISSUED FOR BARBERS, STUDENT BARBERS, AND BARBER SHOPS IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Barbers[a]	Apprentices and Students	Shops	County	Barbers[a]	Apprentices and Students	Shops
Alcona	3	3	5	Lapeer	17	11	22
Alger	5	--	5	Leelanau	3	1	6
Allegan	21	1	33	Lenawee	32	7	41
Alpena	9	3	14	Livingston	16	4	27
Antrim	7	1	9	Luce	1	1	2
Arenac	8	1	7	Mackinac	4	1	10
Baraga	5	2	9	Macomb	208	280	200
Barry	19	1	24	Manistee	6	1	16
Bay	45	9	67	Marquette	18	4	33
Benzie	1	3	5	Mason	12	--	10
Berrien	40	13	63	Mecosta	15	3	19
Branch	11	5	14	Menominee	7	1	11
Calhoun	34	11	83	Midland	10	7	34
Cass	6	1	12	Missaukee	1	--	3
Charlevoix	5	--	10	Monroe	23	10	40
Cheboygan	12	2	13	Montcalm	10	1	19
Chippewa	13	1	22	Montmorency	4	1	5
Clare	12	2	14	Muskegon	55	11	70
Clinton	7	2	21	Newaygo	4	2	5
Crawford	3	1	3	Oakland	248	139	400
Delta	13	2	16	Oceana	6	1	11
Dickinson	11	1	14	Ogemaw	5	1	13
Eaton	9	7	31	Ontonagon	2	--	9
Emmet	6	1	19	Osceola	4	1	9
Genesee	141	162	248	Oscoda	5	1	7
Gladwin	3	1	11	Otsego	3	2	5
Gogebic	9	1	16	Ottawa	35	8	45
Grand Traverse	12	2	25	Presque Isle	6	2	8
Gratiot	12	2	27	Roscommon	13	1	15
Hillsdale	8	2	26	Saginaw	52	31	106
Houghton	14	1	19	Sanilac	10	13	28
Huron	13	2	17	Schoolcraft	2	2	6
Ingham	58	46	139	Shiawassee	17	21	33
Ionia	12	5	29	St. Clair	44	14	65
Iosco	12	2	18	St. Joseph	11	1	21
Iron	7	1	12	Tuscola	22	15	26
Isabella	9	6	14	Van Buren	13	3	24
Jackson	41	18	59	Washtenaw	61	21	89
Kalamazoo	48	22	95	Wayne	1,131	1,048	1,522
Kalkaska	5	--	3	Wexford	14	1	14
Kent	93	30	187	Outstate	330	16	--
Keweenaw	--	--	1	Foreign	6	3	--
Lake	5	--	8	Unassigned	1	--	--
				TOTAL	3,294	2,067	4,496

SOURCE: Michigan Department of Licensing and Regulation, special release.

a. Includes apprentices.

TABLE XXIII-21. NUMBER OF LICENSES ISSUED FOR MORTICIANS, FUNERAL DIRECTORS, AND MORTUARIES IN MICHIGAN, BY COUNTY: 18 AUGUST 1978

County	Morti-cians	Funeral directors	Mortu-aries	County	Morti-cians	Funeral directors	Mortu-aries
Alcona	4	--	2	Lapeer	17	--	6
Alger	2	--	1	Leelanau	3	--	1
Allegan	12	--	11	Lenawee	31	--	16
Alpena	10	1	5	Livingston	17	--	6
Antrim	9	--	5	Luce	2	--	1
Arenac	4	--	3	Mackinac	4	--	1
Baraga	3	--	2	Macomb	138	5	37
Barry	13	--	5	Manistee	17	--	4
Bay	27	--	11	Marquette	21	1	8
Benzie	4	--	3	Mason	9	--	4
Berrien	46	--	20	Mecosta	13	--	4
Branch	11	--	6	Menominee	9	1	6
Calhoun	38	--	13	Midland	18	1	4
Cass	9	--	5	Missaukee	5	--	2
Charlevoix	6	1	3	Monroe	21	1	13
Cheboygan	10	--	3	Montcalm	20	--	9
Chippewa	9	--	4	Montmorency	2	--	2
Clare	7	--	4	Muskegon	37	--	11
Clinton	16	--	6	Newaygo	10	1	6
Crawford	2	--	1	Oakland	199	2	49
Delta	16	--	9	Oceana	10	--	4
Dickinson	15	--	5	Ogemaw	6	--	3
Eaton	23	2	11	Ontonagon	3	--	2
Emmet	10	1	3	Osceola	6	--	4
Genesee	91	2	24	Oscoda	2	--	1
Gladwin	6	--	3	Otsego	9	1	2
Gogebic	13	--	6	Ottawa	30	2	12
Grand Traverse	18	--	4	Presque Isle	6	--	5
Gratiot	25	--	8	Roscommon	8	1	4
Hillsdale	16	--	8	Saginaw	40	1	20
Houghton	21	--	13	Sanilac	23	--	10
Huron	15	--	10	Schoolcraft	4	--	2
Ingham	62	1	13	Shiawassee	17	1	9
Ionia	20	1	11	St. Clair	43	1	16
Iosco	12	--	5	St. Joseph	20	--	9
Iron	7	--	4	Tuscola	21	1	11
Isabella	8	--	2	Van Buren	24	--	15
Jackson	36	1	17	Washtenaw	38	1	11
Kalamazoo	44	2	17	Wayne	467	10	180
Kalkaska	2	--	1	Wexford	6	--	5
Kent	112	5	33	Outstate	209	7	--
Keweenaw	0	--	0	Foreign	3	--	--
Lake	2	--	2				
				TOTAL	2,403	55	837

SOURCE: Michigan Department of Licensing and Regulation, special release.

XXIV. INTERNATIONAL TRADE

The first Survey of the Origin of Exports by Manufacturing Establishments was organized in response to public and congressional requests for information on the geographic source of manufactured goods sold to customers in other countries. The survey has been repeated at three-year intervals since the first one, for 1960, was completed.

The Bureau of the Census sends copies of the reporting form to more than 20,000 manufacturing establishments with 100 or more employees. Establishments with exports valued at $25,000 or more, f.o.b. plant, are asked to report their exports. These replies are the basis for the geographic allocation of reported export shipments by the manufacturers themselves.

Estimated values of exports, f.o.b. producing plant, for each state or Standard Metropolitan Statistical Area represent the sum of reported exports and exports unknown to the manufacturer; for example, exports handled through a wholesaler. The latter figures are calculated on the basis of the geographical distribution of total manufacturing employment, since there is no survey of middlemen to make that determination.

Other foreign trade statistics are compiled by the Bureau of Customs, U.S. Department of Commerce. These figures represent the flow through Michigan and other states.

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TABLE XXIV-1. VALUE OF EXPORT SHIPMENTS BY MANUFACTURING ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES AND IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS, F.O.B. PRODUCING PLANT: 1963, 1966, 1969, 1971, 1972, AND 1976

(In millions of dollars)

Area	1963	1966	1969	1971	1972	1976
Estimated[a]						
Michigan	1,116.3	1,568.2	2,613.1	2,834.0	3,522.2	6,888.1
United States	16,472.6	21,299.2	29,210.0	33,132.3	36,608.0	83,098.0
Reported[b]						
Michigan	836.4	1,230.0	2,018.1	2,127.7	2,562.0	n.a.
United States	11,003.7	14,952.9	20,403.3	22,813.8	25,510.6	60,105.1
Standard Metropolitan Statistical Area:						
Ann Arbor	n.a.	47.9	111.7	173.4	196.7	289.0[a]
Bay City	n.a.	3.3	7.2	18.8	21.9	79.7[a]
Detroit	489.7	726.1	1,191.1	1,602.2	1,847.9	3,753.0[a]
Flint	n.a.	(c)	(d)	(e)	(e)	703.6[a]
Grand Rapids	32.1	51.7	55.4	111.3	131.6	232.6[a]
Jackson	n.a.	19.3	26.4	39.4	44.8	73.1[a]
Kalamazoo-Portage	n.a.	22.1	36.8	56.2	60.2	218.5[a]
Lansing-East Lansing	n.a.	79.1	118.1	117.2	122.2	464.1[a]
Muskegon-Muskegon Heights-Norton Shores	n.a.	20.7	24.5	95.1	88.2	116.0[a]
Saginaw	n.a.	17.1	45.4	76.1	78.8	189.5[a]

SOURCE: Bureau of the Census, Current Industrial Reports, Series M161, 1960 and 1963 (discontinued in 1963) and Series MA161, 1966, 1969, 1971, and 1972 (Washington, D.C.: periodically), MA161(72)-2, Tables 3 and 4 (1972); and Annual Survey of Manufactures 1976 (Washington, D.C.: 1978), M76(AS)-8, Tables A, 2, and 4.

a. Reported value of exports by manufacturers plus the value of exports handled through wholesalers or other purchasers whose intention to export the products was not known to the manufacturer.
b. Value of known exports from a survey of firms with 100 or more employees, exporting $25,000 or more.
c. $50 million or over but less than $100 million.
d. $100 million or over but less than $200 million.
e. More than $200 million.
n.a.: not available.

TABLE XXIV-2. VALUE OF EXPORT SHIPMENTS BY MANUFACTURING PLANTS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP, F.O.B. PRODUCING PLANT: 1969, 1971, 1972, AND 1976

(In millions of dollars)

Industry group	Michigan				United States			
	1969	1971	1972	1976	1969	1971	1972	1976
Food and kindred products	50.2	59.7	61.1	176.0	2,150.0	2,715.8	3,046.2	5,883.0
Paper and allied products	13.4	20.1	16.8	38.2	790.0	949.8	988.4	2,260.7
Chemicals and allied products	141.6	122.5	180.3	421.2	3,049.0	3,519.7	3,756.8	9,271.2
Rubber and plastics products	13.2	15.1	35.3	43.9	387.8	452.3	519.3	1,270.4
Stone, clay, and glass products	27.1	35.9	48.9	54.7	341.6	377.5	408.7	901.7
Primary metal industries	109.4	111.8	126.1	652.2	1,782.0	1,435.6	1,490.2	2,935.7
Fabricated metal products[a]	190.1	244.1	312.2	478.1	1,180.6	1,296.6	1,429.3	3,702.5
Nonelectrical machinery	474.1	459.1	464.2	1,011.6	6,021.1	7,061.4	7,823.6	19,036.5
Electrical equipment and supplies	82.0	103.4	131.2	224.2	2,480.0	2,714.8	3,295.8	9,169.5
Transportation equipment[b]	1,417.5	1,529.9	1,736.1	3,586.3	6,174.4	7,571.2	7,841.7	16,518.1
Instruments and related products	17.7	(c)	27.8	64.9	1,086.8	1,343.1	1,530.9	3,758.3
All other	76.8	132.4[d]	382.4	136.8	3,756.7	3,694.5	4,477.1	8,390.4
TOTAL	2,613.1	2,834.0	3,522.2	6,888.1	29,210.0	33,132.3	36,608.0	83,098.0

SOURCE: Bureau of the Census, Current Industrial Reports, Series MA161, 1969 and 1972 (Washington, D.C.: periodically), MA161(72)-2, Table 2 (1971 and 1972 data); and Annual Survey of Manufacturers 1976 (Washington, D.C.: 1978) M76(AS)-8, Table 3A.

a. Definition expanded in 1967 to include captive automotive stampings plants of motor vehicle manufacturers.

b. Definition contracted in 1967 to exclude captive automotive stampings plants of motor vehicle manufacturers.

c. $25 million to $50 million.

d. Includes instruments and related products.

TABLE XXIV-3. FACTORY SHIPMENTS AND EMPLOYMENT RELATED TO MANUFACTURED EXPORTS, BY MAJOR INDUSTRY GROUP, MICHIGAN AND THE UNITED STATES: 1976

Industry group or products	Value of mfg. shipments Millions of dollars			Percentage[a]		Mfg. employment Thousands			Percentage[b]	
	Direct	Supporting	Total	Michigan	United States	Direct	Supporting	Total	Michigan	United States
Food and kindred	176.0	176.0	242.9	4.8	4.6	0.9	0.6	1.5	3.4	3.7
Textile mill	9.4	8.7	18.1	9.2	7.8	0.2	0.1	0.3	9.4	7.6
Apparel, other textile	64.4	45.1	109.5	8.0	3.4	0.9	0.7	1.6	7.3	2.4
Lumber and wood	5.6	32.2	37.8	7.1	11.4	0.1	0.8	0.9	6.4	9.2
Furniture and fixtures	14.9	8.1	23.0	2.6	2.1	0.3	0.2	0.5	2.5	2.0
Paper and allied	38.2	107.5	145.7	8.3	10.6	0.4	1.4	1.8	8.0	9.5
Printing and publishing	9.0	15.8	24.8	1.8	2.5	0.1	0.4	0.5	1.4	2.2
Chemical and allied	421.2	218.7	639.9	18.0	15.9	3.8	2.1	5.9	17.7	15.3
Petroleum and coal	12.3	19.9	32.2	3.4	3.5	(c)	0.1	0.1	4.5	4.2
Rubber, misc. plastic	43.9	91.4	135.3	10.0	10.7	0.8	2.0	2.8	9.3	10.3
Stone, clay, glass	54.7	48.8	103.5	9.1	7.0	1.0	0.8	1.8	9.7	7.5
Primary metal	652.2	821.2	1,473.4	23.1	17.3	7.3	10.7	18.0	21.8	16.8
Fabricated metal	478.1	771.3	1,249.4	15.9	11.3	7.3	12.3	19.6	15.0	11.1
Machinery, not elec.	1,011.6	506.4	1,518.0	19.5	23.1	13.2	9.8	23.0	17.2	20.7
Electric, electronic equipment	224.2	74.3	298.5	17.7	17.8	3.6	7.0	10.6	33.8	18.6
Transportation equip.	3,586.3	905.0	4,491.3	12.0	14.5	32.0	7.3	39.3	13.0	15.1
Instruments and related	64.9	14.9	79.8	17.1	17.7	1.6	1.3	2.9	23.2	18.6
Misc. mfg. industries	18.1	4.7	22.8	6.9	9.6	0.5	0.2	0.7	9.3	7.5
Central admin. offices, auxiliary	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	16.2	16.2	16.0	12.0
Total	6,888.1	3,763.2	10,651.3	13.3	11.6	73.9	74.0	147.9	14.1	11.3

SOURCE: Bureau of the Census, Annual Survey of Manufactures 1976, Origin of Exports of Manufacturing Establishments (Washington, D.C.: 1976), M76 (AS)-8 Supplement 3, Tables 4 and 5.

a. Total export related shipments as a percentage of total manufacturers' shipments.

b. Total export related employment as a percentage of total manufacturing employment.

c. Less than one-half of the unit of measurement shown.

N.A.: not applicable.

TABLE XXIV-4. VALUE OF IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT AND THE UNITED STATES, VESSEL AND AIR SHIPMENTS AND TOTAL: 1970-1979

(In millions of dollars)

Year	Total		Vessel		Air	
	Detroit	United States	Detroit	United States	Detroit	United States
			General imports			
1970	4,166.1	39,963.2	334.3	24,783.3	44.8	3,415.1
1971	5,131.2	45,562.8	483.3	27,036.0	36.2	4,014.7
1972	5,901.4	55,582.8	495.2	33,665.6	56.8	5,194.4
1973	6,829.5	69,475.7	465.2	42,601.7	72.9	6,929.7
1974[a]	8,466.1	100,972.3	504.4	67,165.2	87.8	8,921.7
1975[a]	8,205.1	96,104.4	470.2	63,224.3	70.6	8,841.9
1976[a]	10,280.5	120,677.4	705.0	80,758.7	74.7	10,847.0
1977[a]	11,483.1	146,816.7	999.8	100,854.2	72.6	12,491.4
1978	12,728.1	173,249.9	805.4	115,499.0	81.0	17,923.1
1979	13,748.8	207,131.1	881.5	140,924.1	110.2	22,168.7
			Exports of domestic and foreign merchandise			
1970	4,065.7	43,226.4	168.0	24,615.0	102.2	5,984.2
1971	4,892.2	44,129.9	175.6	22,829.3	75.4	6,296.9
1972	5,848.2	49,778.2	141.0	25,758.0	94.2	7,516.0
1973	7,036.5	71,338.8	195.6	39,853.8	161.1	10,303.6
1974[a]	8,707.3	98,507.2	226.9	55,904.8	198.6	13,781.2
1975[a]	9,751.1	107,651.8	249.4	61,801.1	167.5	14,554.6
1976[a]	10,889.1	114,997.2	283.9	64,868.8	184.1	16,905.5
1977[a]	12,115.5	120,163.2	354.2	65,596.5	212.1	19,660.3
1978	13,366.2	143,662.7	578.1	77,530.8	229.7	25,896.7
1979	14,210.1	181,801.6	789.0	97,788.4	171.?	36,660.6

SOURCE: Bureau of the Census, Highlights of U.S. Export and Import Trade, December 1968 through December 1979 (Washington, D.C.: monthly), Tables I-15 and E-4 (December 1979).

a. Transaction value of imports at the foreign port of exportation, including costs to place it alongside the ship, or f.a.s. (free alongside ship) value. For prior years the figures and customs values, which generally represented the value in the foreign country for collection of import duties.

TABLE XXIV-5. WEIGHT OF WATERBORNE IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT BY PORT: 1973-1978

(Millions of pounds)

Port	Imports						Exports					
	1973	1974	1975	1976	1977	1978	1973	1974	1975	1976	1977	1978
Detroit	8,010	6,452	7,445	9,986	10,225	5,903	1,834	1,343	1,199	902	881	1,410
Port Huron	46	51	34	504	748	637	18	10	2	10	12	648
Sault Ste. Marie	38	12	0	37	52	35	248	703	596	440	637	608
Saginaw-Bay City	468	251	157	437	496	313	664	536	592	438	443	721
Muskegon	246	39	24	133	113	135	26	10	1	8	31	12
Grand Haven	0	0	32	94	52	102	104	0	46	9	0	0
Rogers City	0	33	0	34	0	32	1,77[illegible]	1,964	1,616	1,386	1,868	2,587
Detour	0	0	0	1	29	56	428	466	853	901	735	797
Escanaba	0	0	0	0	0	57	0	0	860	958	396	787
Presque Isle	0	0	0	0	29	0	321	0	0	2,366	1,854	2,773
Alpena	146	176	4	216	58	27	1,528	2,283	3,340	3,302	3,007	2,259
Ferrysburg	104	104	37	39	38	7	0	0	0	0	0	0
TOTAL	9,058	7,118	7,733	11,481	11,840	7,298	6,944	7,315	9,106	10,717	9,864	12,601

SOURCE: Bureau of the Census, Waterborne Exports and General Imports, 1973 through 1978 (Washington, D.C.: annual), FT 985-78-13, Tables I-1 and E-1 (1978).

XXV. OTHER ENTERPRISE STATISTICS

This chapter includes material that cannot easily be categorized within the other chapters relating to business in Michigan. Statistics on patents and on research and development activities of businesses are collected and published by various agencies of the federal government. Minority-owned enterprise data on a national, state, and Standard Metropolitan Statistical Area basis were collected and published by the Bureau of the Census, using the files of the Internal Revenue Service and the Social Security Administration as well as a mail canvass. Minorities include Negroes and other racial minorities and Spanish-speaking groups.

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TABLE XXV-1. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATION, AND NET PROFITS OF NONFARM PROPRIETORSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1976

Year	Number	Thousands of dollars			
		Business receipts	Payrolls	Depreciation	Net profit
		Michigan			
1965	229,649	6,720,734	792,371	181,681	1,130,182
1966	215,769	7,632,329	865,609	193,124	1,160,758
1967	214,644	8,221,935	996,612	191,016	1,264,783
1968	219,172	8,203,156	1,038,499	209,713	1,318,421
1969	229,493	8,261,634	1,007,738	n.a.	1,325,899
1970	221,780	7,953,693	939,301	n.a.	1,232,920
1971	241,718	8,245,805	955,840	n.a.	1,240,018
1972	246,562	8,748,695	1,018,386	239,825	1,372,904
1973	257,408	9,362,591	1,114,025	274,870	1,542,548
1974	261,798	9,893,119	1,076,543	288,916	1,458,146
1975	264,716	9,892,274	1,090,173	303,934	1,418,023
1976	275,597	10,392,873	1,087,828	317,160	1,503,054
		United States			
1965	5,855,257	167,032,214	19,251,839	4,348,078	24,145,658
1966	5,901,571	171,643,054	19,653,340	4,481,983	25,504,318
1967	5,925,935	175,660,827	20,138,994	4,677,045	26,621,637
1968	5,998,610	184,617,439	21,229,554	4,779,256	28,299,606
1969	6,155,374	193,894,487	22,364,904	n.a.	29,739,427
1970	6,313,259	195,792,289	22,362,930	n.a.	30,022,920
1971	6,612,225	211,193,510	23,513,831	n.a.	31,516,479
1972	6,957,436	224,128,730	24,466,884	6,071,144	33,911,098
1973	7,445,153	248,785,404	26,924,663	6,862,388	38,058,018
1974	7,688,795	264,802,830	27,391,496	7,470,131	38,980,898
1975	7,759,576	273,954,741	29,018,942	7,958,143	39,636,453
1976	8,139,962	301,446,844	31,494,376	8,536,390	44,424,787

SOURCE: Internal Revenue Service, Statistics of Income, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: annually), Table 1.4.

n.a.: not available.

TABLE XXV-2. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATION, AND NET PROFITS OF PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1976

Year	Number	Thousands of dollars			
		Business receipts	Payrolls	Depreciation	Net profit
			Michigan		
1965	30,763	2,989,223	384,357	75,163	406,845
1966	31,662	2,953,941	380,274	98,563	402,722
1967	30,935	2,953,666	411,458	95,772	419,930
1968	31,721	3,065,198	410,656	111,077	447,845
1969	31,374	3,204,384	411,487	n.a.	396,754
1970	31,859	2,802,157	354,031	n.a.	252,589
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	33,413	3,269,015	370,382	192,886	273,833
1973	34,408	3,856,285	455,088	241,160	298,961
1974	36,592	4,302,715	490,288	266,340	249,977
1975	35,537	4,289,002	476,074	324,096	253,272
1976	36,013	4,285,667	459,319	326,919	257,583
			United States		
1965	786,558	68,595,859	9,384,714	2,162,066	9,027,981
1966	796,116	72,808,301	9,805,683	2,361,243	9,656,194
1967	780,885	72,515,107	10,169,459	2,599,921	10,216,025
1968	795,495	75,213,174	10,617,664	2,903,298	10,756,354
1969	800,391	80,009,120	11,148,745	n.a.	9,788,097
1970	811,845	82,982,213	11,558,441	n.a.	9,122,597
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	876,150	95,435,014	12,587,899	5,296,742	8,889,094
1973	915,994	109,476,011	13,595,004	6,382,308	7,929,218
1974	952,175	125,780,194	14,961,016	7,785,440	7,973,323
1975	964,052	134,511,262	16,179,238	9,197,292	7,000,900
1976	974,763	144,822,904	17,840,359	9,889,016	9,450,489

SOURCE: Internal Revenue Service, Statistics of Income, Business Income Tax Returns, Sole Proprietorships and Partnerships (Washington, D.C.: annually), Table 2.4.

TABLE XXV-3. NUMBER OF FRANCHISE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES, BY TYPE OF BUSINESS: 1973, 1976, AND 1977

Kind of business	Year	Michigan			United States		
		Company owned	Franchisee owned	Total	Company owned	Franchisee owned	Total
Convenience stores	1973	83	141	224	1,161	4,340	11,501
	1976	139	116	255	8,401	4,504	12,905
	1977	118	136	254	9,067	4,846	13,913
Fast food restaurants	1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	470	1,400	1,870	10,080	27,470	37,550
	1977	611	1,337	1,948	12,932	31,857	44,789
Retailing (nonfood)	1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	237	814	1,051	8,027	27,253	35,280
	1977	241	806	1,047	8,104	27,876	35,980
Hotels and motels	1973	21	86	107	1,152	3,840	4,992
	1976	27	92	119	1,010	3,905	4,915
	1977	25	84	109	913	3,985	4,898
Campgrounds	1973	0	26	26	38	983	1,021
	1976	0	32	32	20	1,019	1,039
	1977	0	31	31	18	960	978
Employment services	1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	18	62	80	604	2,267	2,871
	1977	18	85	103	n.a.	n.a.	n.a.
Printing and copying services	1973	0	26	26	67	876	943
	1976	9	56	65	129	1,367	1,496
	1977	11	79	90	127	1,706	1,833
Rental services (equipment)	1973	0	42	42	133	1,097	1,230
	1976	0	47	47	171	1,236	1,407
	1977	1	46	47	156	1,254	1,410
Real estate	1973	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1976	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1977	36	462	498	115	9,622	9,737

SOURCE: U.S. Department of Commerce, Industry and Trade Administration, Franchising in the Economy, 1977-1979 (Washington, D.C.: 1979), Tables 33, 36, 41, 50, 58, 60, 62, 77, and 80; and similar documents for previous years.

n.a.: not available.

TABLE XXV-4. BLACK OWNED FIRMS IN MICHIGAN AND IN COUNTIES WITH 100 OR MORE SUCH FIRMS, BY INDUSTRY DIVISION: 1977

County and industry	All firms		With paid employees			
	Number of firms	Gross receipts ($1,000)	Number of firms	Employees for week including 12 March (number)	Annual payroll ($1,000)	Gross receipts ($1,000)
Berrien						
Construction	13	231	2	(D)	(D)	(D)
Manufacturing	2	(D)	1	(D)	(D)	(D)
Transportation & public utilities	9	170	--	--	--	--
Wholesale trade	3	(D)	--	--	--	--
Retail trade	58	2,225	7	24	155	1,420
Finance, insurance, & real estate	7	20	--	--	--	--
Selected services	79	1,670	15	50	284	1,212
Other industries	--	--	--	--	--	--
Industries not classified	5	20	--	--	--	--
TOTAL	176	4,855	25	98	541	2,994
Calhoun						
Construction	10	580	3	(D)	(D)	(D)
Manufacturing	1	(D)	--	--	--	--
Transportation & public utilities	10	76	--	--	--	--
Wholesale trade	--	--	--	--	--	--
Retail trade	25	737	7	(D)	(D)	(D)
Finance, insurance, & real estate	2	(D)	--	--	--	--
Selected services	74	1,156	13	50	247	716
Other industries	--	--	--	--	--	--
Industries not classified	3	(D)	--	--	--	--
TOTAL	125	2,558	23	69	430	1,794
Genesee						
Construction	33	972	9	13	165	706
Manufacturing	3	(D)	1	(D)	(D)	(D)
Transportation & public utilities	51	976	7	(D)	(D)	(D)
Wholesale trade	1	(D)	--	--	--	--
Retail trade	125	6,650	34	121	555	5,667
Finance, insurance, & real estate	35	340	1	(D)	(D)	(D)
Selected services	231	4,822	37	150	999	3,378
Other industries	5	34	--	--	--	--
Industries not classified	13	(D)	1	(D)	(D)	(D)
TOTAL	497	13,932	90	296	1,814	10,304

TABLE XXV-4. BLACK OWNED FIRMS IN MICHIGAN AND IN COUNTIES WITH 100 OR MORE SUCH FIRMS, BY INDUSTRY DIVISION: 1977 (cont.)

County and industry	All firms		With paid employees			
	Number of firms	Gross receipts ($1,000)	Number of firms	Employees for week including 12 March (number)	Annual payroll ($1,000)	Gross receipts ($1,000)
Ingham						
Construction	16	797	5	10	174	604
Manufacturing	--	--	--	--	--	--
Transportation & public utilities	10	70	--	--	--	--
Wholesale trade	1	(D)	1	(D)	(D)	(D)
Retail trade	19	1,330	3	(D)	(D)	(D)
Finance, insurance, & real estate	6	(D)	--	--	--	--
Selected services	57	788	7	15	51	342
Other industries	2	(D)	--	--	--	--
Industries not classified	5	20	--	--	--	--
TOTAL	116	3,193	16	55	331	2,158
Kalamazoo						
Construction	5	66	1	(D)	(D)	(D)
Manufacturing	5	(D)	1	(D)	(D)	(D)
Transportation & public utilites	6	82	--	--	--	--
Wholesale trade	1	(D)	--	--	--	--
Retail trade	27	1,322	7	29	138	1,035
Finance, insurance, & real estate	8	80	1	(D)	(D)	(D)
Selected services	80	1,248	9	26	219	641
Other industries	1	(D)	--	--	--	--
Industries not classified	3	(D)	--	--	--	--
TOTAL	136	2,970	19	62	390	1,839
Kent						
Construction	10	210	1	(D)	(D)	(D)
Manufacturing	7	483	6	(D)	(D)	(D)
Transportation & public utilities	19	269	--	--	--	--
Wholesale trade	3	239	--	--	--	--
Retail trade	53	2,864	17	47	203	2,254
Finance, insurance, & real estate	18	(D)	3	(D)	(D)	(D)
Selected services	129	1,819	15	33	177	954
Other industries	1	(D)	--	--	--	--
Industries not classified	8	31	--	--	--	--
TOTAL	248	6,190	42	106	580	3,819

TABLE XXV-4. BLACK OWNED FIRMS IN MICHIGAN AND IN COUNTIES WITH 100 OR MORE SUCH FIRMS, BY INDUSTRY DIVISION: 1977 (cont.)

County and industry	All firms		With paid employees			
	Number of firms	Gross receipts ($1,000)	Number of firms	Employees for week including 12 March (number)	Annual payroll ($1,000)	Gross receipts ($1,000)
Macomb						
Construction	41	972	9	22	186	546
Manufacturing	13	853	6	27	218	717
Transportation & public utilities	83	1,678	11	13	156	780
Wholesale trade	4	180	--	--	--	--
Retail trade	244	22,095	74	300	1,426	15,822
Finance, insurance, & real estate	52	783	4	(D)	(D)	(D)
Selected services	336	6,292	54	130	756	3,515
Other industries	9	73	--	--	--	--
Industries not classified	17	162	1	(D)	(D)	(D)
TOTAL	799	33,088	159	503	2,822	21,722
Oakland						
Construction	24	1,522	8	15	257	949
Manufacturing	5	(D)	1	(D)	(D)	(D)
Transportation & public utilities	27	777	2	(D)	(D)	(D)
Wholesale trade	5	(D)	2	(D)	(D)	(D)
Retail trade	89	12,260	26	215	1,606	10,171
Finance, insurance, & real estate	45	1,581	10	29	260	1,022
Selected services	241	6,805	40	281	1,189	4,759
Other industries	10	333	4	(D)	(D)	(D)
Industries not classified	9	264	--	--	--	--
TOTAL	455	83,513	93	886	17,071	77,125
Saginaw						
Construction	12	360	1	(D)	(D)	(D)
Manufacturing	--	--	--	--	--	--
Transportation & public utilities	11	121	--	--	--	--
Wholesale trade	--	--	--	--	--	--
Retail trade	41	4,586	17	62	276	3,992
Finance, insurance, & real estate	13	179	2	(D)	(D)	(D)
Selected services	77	1,331	13	18	118	562
Other industries	--	--	--	--	--	--
Industries not classified	9	91	--	--	--	--
TOTAL	163	6,668	33	89	446	4,809

TABLE XXV-4. BLACK OWNED FIRMS IN MICHIGAN AND IN COUNTIES WITH 100 OR MORE SUCH FIRMS, BY INDUSTRY DIVISION: 1977 (cont.)

County and industry	All firms		With paid employees			
	Number of firms	Gross receipts ($1,000)	Number of firms	Employees for week including 12 March (number)	Annual payroll ($1,000)	Gross receipts ($1,000)
Washtenaw						
Construction	11	234	3	--	16	179
Manufacturing	--	--	--	--	--	--
Transportation & public utilities	16	183	2	(D)	(D)	(D)
Wholesale trade	2	(D)	--	--	--	--
Retail trade	33	7,593	8	117	963	7,423
Finance, insurance, & real estate	6	44	--	--	--	--
Selected services	142	1,866	18	47	225	1,057
Other industries	8	(D)	3	(D)	(D)	(D)
Industries not classified	7	28	--	--	--	--
TOTAL	225	10,212	34	167	1,273	8,925
Wayne						
Construction	353	8,726	62	98	1,076	4,487
Manufacturing	47	20,302	15	299	4,976	19,546
Transportation & public utilities	512	14,790	76	277	2,413	8,455
Wholesale trade	36	16,260	12	118	1,855	15,243
Retail trade	1,330	141,851	435	1,640	10,420	117,255
Finance, insurance, & real estate	271	12,659	31	232	2,056	10,184
Selected services	2,253	47,704	427	1,567	8,384	31,233
Other industries	75	1,189	18	(D)	(D)	(D)
Industries not classified	133	1,903	7	(D)	(D)	(D)
TOTAL	5,010	265,384	1,083	4,256	31,459	207,556
MICHIGAN						
Construction	575	15,867	114	193	2,272	8,999
Manufacturing	92	23,395	36	407	5,768	22,075
Transportation & public utilities	787	19,958	105	316	2,817	10,311
Wholesale trade	60	76,765	15	458	15,558	75,182
Retail trade	2,201	211,426	671	2,760	16,551	171,856
Finance, insurance, & real estate	489	16,780	56	291	2,534	12,510
Selected services	3,956	80,336	688	2,499	13,420	51,527
Other industries	119	2,005	26	(D)	(D)	(D)
Industries not classified	219	2,771	9	(D)	(D)	(D)
TOTAL	8,498	449,303	1,720	6,953	59,288	354,190

SOURCE: Bureau of the Census, 1977 Survey of Minority-owned Business Enterprises, Black (Washington, D.C.: 1979), Tables 26 and 4.
(D): Withheld to avoid disclosing data for individual companies.

TABLE XXV-5. EXPENDITURES FOR INDUSTRIAL RESEARCH AND DEVELOPMENT IN MICHIGAN AND THE UNITED STATES, BY SOURCE OF FUNDING: 1963-1977

(In millions of dollars)

Date	Federal funds		Mich. as a	Company funds		Mich. as a
	Michigan	United States	% of U.S.	Michigan	United States	% of U.S.
1963	65	7,270	.89	797	5,360	14.87
1964	65	7,600	.85	835	5,753	14.51
1965	67	7,740	.86	895	6,445	13.89
1966	98	8,287	1.18	977	7,254	13.47
1967	115	8,388	1.39	952	8,032	11.85
1968	98	8,559	1.14	1,086	8,876	12.23
1969	83	8,619	.96	1,228	9,856	12.46
1970	77	7,785	.99	1,171	10,073	11.62
1971	78	7,671	1.02	1,338	10,643	12.57
1972	86	8,090	1.06	1,500	11,347	13.22
1973	56	8,222	.68	1,832	12,699	14.43
1974	78	8,332	.94	1,990	14,038	14.18
1975	114	8,765	1.30	1,858	14,776	12.57
1976	124	9,285	1.33	2,248	17,391	12.93
1977	144	10,545	1.37	2,614	19,362	13.50

SOURCE: National Science Foundation, Research and Development in Industry, 1966 through 1975 (Washington, D.C.: annually), NS76-322, Table B-23 (1977), and National Science Foundation, Basic Research, Applied Research, and Development in Industry, 1964 (Washington, D.C.: 1966), NS66-28, Table 26.

NOTE: The bulk of expenditures for industrial research and development are for development and made by manufacturing industries.

TABLE XXV-6. NEW INCORPORATIONS IN MICHIGAN: 1958-1979

Year	Profit	Nonprofit	Foreign (out of state)	Total
1958	3,900	1,272	404	5,576
1959	4,812	1,209	527	6,548
1960	4,800	1,261	499	6,560
1961	4,788	1,312	497	6,597
1962	5,135	1,243	601	6,979
1963	5,102	1,241	528	6,871
1964	5,825	1,256	593	7,674
1965	6,152	1,286	627	8,065
1966	6,315	1,356	640	8,311
1967	6,341	1,361	715	8,417
1968	7,700	1,588	825	10,113
1969	9,586	1,767	1,064	12,417
1970	8,378	1,782	1,054	11,214
1971	8,270	1,993	1,082	11,345
1972	9,202	2,134	1,175	12,511
1973	9,709	1,878	1,093	12,680
1974	9,342	2,106	1,009	12,457
1975	9,996	2,138	926	13,060
1976	11,545	2,080	972	14,597
1977	13,273	2,082	956	16,311
1978	14,538	2,148	1,039	17,725
1979	18,654	2,217	1,062	21,933

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor, 1980 (Lansing: 1980), Table C-18.

TABLE XXV-7. U.S. PATENTS ISSUED TO RESIDENTS OF MICHIGAN AND THE UNITED STATES: 1966-1979

Year	Michigan	United States	Year	Michigan	United States
1966	3,675	57,700	1974	3,215	57,812
1967	3,306	54,191	1975	2,832	49,494
1968	2,968	48,804	1976	2,691	51,808
1969	3,160	53,422	T.Q.	621	11,368
1970	2,831	49,821	1977	2,474	47,292
1971	3,386	58,693	1978	2,373	44,482
1972	3,156	54,093	1979	1,875	34,383
1973	3,091	54,690			

SOURCE: Patent and Trademark Office, Commissioner of Patents and Trademarks, Annual Report, Fiscal Year: 1979 (Washington, D.C.: 1980), Table 6.

NOTE: 1966-1973 are calendar years and do not include reissues; 1974-1975 are fiscal years and include reissues. T.Q. = transitionary quarter, 1 July 1976 - 30 September 1976.

XXVI. TRAVEL AND RECREATION

During 1977, 53 million American households traveled; that is, at least one member in each one of them visited a place 100 or more miles from home and returned. California was affected more than any other state. Nearly 22 million people (from more than 10 million households) traveled through or to, or originated their trips in, the Golden State. Second through sixth places were held by New York, Florida, Pennsylvania, Illinois, and Ohio. Michigan ranked seventeenth. This comparatively low ranking results from the fact that relatively few people pass through Michigan on their way elsewhere. Illinois, in contrast, is the crossroads of the nation. Maryland, Pennsylvania, New York, Ohio, New Jersey, and Indiana also have heavy through traffic. Excluding those who are just passing through, Michigan ranked seventh in the number of visitors. California led, followed by Florida, Texas, New York, Pennsylvania, and Illinois.

The National Travel Survey is conducted as part of the quinquennial Census of Transportation during years ending in 2 and 7. Between April 1977 and January 1978, 20,000 U.S. households provided information about their travel during the year. Besides data on education, income, age, and various other characteristics of the households and the people in them, the Bureau of the Census collected information about trip destinations, mode of travel, distance, and so forth. The results were used to develop estimates of travel patterns for all U.S. households.

A traveler is one who journeys 100 or more miles from home and returns. A person-trip is each such event. If the same person makes two of these trips, that equals two person-trips in the data. Two persons traveling together on a trip also equals two person-trips. Excluded from this definition are trips by crew members of trains, buses, trucks, planes, and ships; trips by students between home and school; trips by military personnel traveling on duty; and commuting to and from work. The 100-mile criterion is based on the fact that few people can recall every journey of less than 100 miles, but most remember those that are longer. The definition makes for consistency of response among households, although it produces some strange results. For example, no intrastate trips are possible in Rhode Island because of its size.

In person-trips, by state of destination (that is, excluding those just passing though), Michigan ranked sixth behind California, Texas, Floria, New York, and Pennsylvania, in that order. In person-nights, by state of destination, the Wolverine State was fifth, after Florida, California, Texas, and New York. A person-night equals one person away from home on a trip for one night. For example, three persons on a trip that entails being away for two nights equals six person-nights.

Since destination rather than origin was the focus of the survey, figures on geographic origin of travel are sketchy. Those available reveal that Michigan supplies more travelers to the nation than it hosts. The same is true of most midwestern states, Wisconsin being a notable exception. The South is the leading region in attracting more visitors than it sends, and the West and New England ran a similar "surplus" in terms of person-nights. The region encompassing New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and Washington,

D.C., ran a deficit, even though the nation's capital, Delaware, and West Virginia had surpluses.

In most states, the largest category of travel was that involving visits to friends and relatives. Exceptions were Alaska, Delaware, New Hampshire, and Vermont (outdoor recreation was the leading travel motivation), Washington, D.C. (business travel led), Hawaii (sightseeing was the major category), and Nevada (entertainment was the primary motive). California led in all these categories. In the number of person-trips and person-nights with outdoor recreation as the main purpose, Wisconsin was second, Michigan third. Michigan also ranked among the top ten states in the categories of sightseeing (sixth), visiting friends and relatives (eighth), and business (ninth).

Accommodations figures were not compiled on a state-by-state basis, but the following observations were made with regard to regions:

> The most popular type of overnight accommodation was with relatives or friends, ranging from 43 percent of nights spent in New England to 61 percent in the Great Lakes Country. New England, the South, and the Far West regions were among the leaders in percentage of nights spent in rental accommodations (slightly over one-third). Nights spent in public or commercial campgrounds were high in the South and Far West regions. Nights spent in own cabin, campsite, or vacation home was highest in the Great Lakes Country and the South.

Michigan travel is more car or truck oriented than the national pattern, and there is less emphasis on airplanes. Compared to the nation, Michigan journeys are more likely to be weekend trips and to involve shorter round-trip distances and more people. Summer is the most popular travel season, more so in Michigan than the nation as a whole (see Table XXVI-1 and XXVI-2).

Of the 19,800,000 person-trips with Michigan destinations made in 1977, 59 percent originated in-state. Michigan ranks eighth in the percentage of total person-trips that have both an in-state orgin and destination. California ranked first. Michigan was sixth from the bottom in number of visitors relative to state population, attracting .89 outside travelers with a Michigan destination per resident. California ranked last on this score (see Table XXVI-5). However, Michigan and California were above the norm in the number of in-state travelers with an in-state destination per resident. These figures indicate that in these two states, as well as in Texas, Nebraska, Washington, Oregon, Idaho, and Minnesota, the states' amenities appeal more to those who live there than to outsiders. In contrast, Nevada can count relatively few residents in its travel market. The same appears to be the case in Washington, D.C., Vermont, New Hampshire, and Delaware, but it should be borne in mind that much driving in these small areas is to destinations less than 100 miles from home and therefore excluded from the travel definition.

Rounding out the highlights from the 1977 National Travel Survey are the facts that Michigan travelers are both more affluent and more likely to be factory workers than are other U.S. travelers.

A comparison of the 1972 and 1977 travel data reveals that Michigan was one of only a few states experiencing a decline in the number of person-trips by destination. In person-nights with a Michigan destination, there was an increase of 12 percent, compared with a 21 percent gain in the corresponding national statistic. The data also show that the frequency of visiting friends and relatives here declined, but those who did come for this purpose stayed longer, on the average. In 1977, more people came to enjoy the Michigan out-of-doors, but they stayed for shorter periods than in 1972.

The volume of business and convention travel to Michigan changed little between 1972 and 1977, although nationally there was a gain. But Michigan outpaced the nation in the rate of increase in travel motivated by sightseeing and entertainment. The state's share of the national total in the latter category still is modest, however, compared with our share of population and income.

As part of its economic census program, the Census Bureau also collects data from business establishments. Each is classified according to its major economic activity. A hotel, motel, tourist court, trailer park, or camp that derives most of its revenues from fees for providing lodgings to the general public is classified in the lodgings industry. During 1977, that industry had receipts of $18.5 billion. Among the states, California was the leader with $1.9 billion, Nevada was second, and Florida third. Michigan ranked eleventh, slipping from tenth place in 1972. Per capita receipts in the Michigan lodgings industry amounted to less than $49 during 1977, an increase of about 60 percent from the 1972 average of $31. Nationally, the industry had receipts of $85 per resident, a gain of 67 percent over the 1972 figure of $51. In per capita rankings, Michigan slipped from 43 to 46 (see Table XXVI-6).

The term eating and drinking places is used for the industry comprised of establishments that derive most of their revenues from the sale of prepared food and drink, or from alcoholic beverages sold for consumption on the premises. This industry includes fast food merchants such as MacDonald's and Tastee Freeze, but not party stores. In total receipts of eating and drinking places, Michigan ranked eighth during 1977, down from seventh in 1972. On the basis of per capita receipts by eating and drinking places, Michigan went from 18 to 20 in the rankings (see Table XXVI-8).

All these figures are only crude travel indicators. Most restaurants serve primarily the local market, not travelers. Furthermore, an appreciable, although unknown, proportion of hotel and motel receipts is derived from serving nearby residents in the bar and restaurant. However, the data do suggest that travel is a considerably less important component in Michigan's economy as compared to the nation's. In general, the National Travel Survey evidence that Michigan's share of travel declined between 1972 and 1977 is borne out by the Census Bureau information.

These points are corroborated in materials prepared by the U.S. Travel Data Center for 1972 and 1976. The center, an independent,

nonprofit research and educational organization, estimated that travel-generated business receipts in Michigan amounted to $1.4 billion during 1972. This placed Michigan eleventh from the bottom in U.S. domestic travel expenditure as a percentage of total income generated in the state. By 1976, the Michigan figure had grown to $3.8 billion, a gain of 179 percent. For the nation as a whole, domestic travel expenditures increased almost 200 percent.

Michigan is so committed to the manufacture of motor vehicles that other economic activity seems to pale in comparison. In northern Michigan, however, where there is almost no heavy industry, the economy depends on tourism to a very considerable extent. Tables XXVI-16 through XXVI-25 are designed to highlight this dependency. Tourism is the lifeblood of the Mackinac County economy, more so than any other in Michigan. The restaurants, motels, and shops on Mackinac Island and in St. Ignace provide livelihoods for residents as well as summer jobs for college students throughout the state. Also, travel to northern Michigan is an important amenity to those who work in the southern cities. That Michigan's tourist industry has been affected by high gasoline prices represents a loss to all of us.

In contrast to tourism, the business-convention type of travel in this state is expanding. Moreover, there is a building boom in motels, hotels, and convention centers that portends more of the same for southeastern Michigan, Grand Rapids, and Traverse City.

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TABLE XXVI-1. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-TRIPS: 1972 AND 1977

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Major means of transportation							
Auto/truck (without camping equipment	1972	18,388	86	17,592	87	356,256	78
	1977	24,576	82	16,007	81	411,023	76
Auto/truck (with camping equipment	1972	1,571	7	1,318	7	34,418	8
	1977	2,353	8	1,225	6	30,983	6
Bus	1972	269	1	248	1	8,413	2
	1977	345	1	325	2	14,959	3
Train	1972	24	0	18	0	1,880	0
	1977	139	0	106	1	4,094	1
Air	1972	1,014	5	927	5	53,891	12
	1977	1,717	6	1,465	7	65,662	12
Other	1972	104	0	92	0	3,626	1
	1977	1,021	3	671	3	12,568	2
Main purpose of trip							
Visit friend/relative	1972	7,363	34	7,079	35	175,868	38
	1977	10,777	36	6,767	34	198,479	37
Bus. and conventions	1972	3,107	15	2,893	14	92,571	20
	1977	3,742	12	2,858	14	105,404	20
Outdoor recreation	1972	4,551	21	4,339	21	57,090	12
	1977	6,048	20	4,926	25	70,610	13
Sightseeing and entertainment	1972	1,787	8	1,385	7	60,774	13
	1977	3,504	12	1,564	8	70,027	13
Other	1972	4,563	21	4,499	22	72,179	16
	1977	5,902	20	3,684	19	94,769	18
Weekend or other trip							
Weekend trip	1972	10,780	50	10,412	52	218,746	48
	1977	13,245	44	9,113	46	218,465	41
Not weekend trip	1972	9,125	43	8,462	42	214,038	47
	1977	16,279	54	10,289	52	314,691	58
Not reported	1972	1,467	7	1,321	7	25,699	6
	1977	528	2	397	2	6,134	1

TABLE XXVI-1. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-TRIPS: 1972 AND 1977 (cont.)

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Vacation or other trip							
Vacation	1972	8,566	40	7,699	38	176,891	39
	1977	12,655	42	7,652	39	199,631	37
Not a vacation	1972	11,873	56	11,585	57	268,609	59
	1977	16,881	56	11,742	59	335,692	62
Not reported	1972	932	4	911	5	12,984	3
	1977	515	2	406	2	3,967	1
Round-trip distance							
200 to 399 miles	1972	10,159	48	10,150	50	189,018	41
	1977	13,911	46	10,904	55	272,299	50
400 to 599 miles	1972	5,126	24	5,069	25	91,663	20
	1977	6,580	22	4,797	24	94,004	17
600 to 799 miles	1972	2,191	10	2,143	11	45,454	10
	1977	1,913	6	1,280	6	40,634	8
800 to 999 miles	1972	912	4	891	4	25,345	6
	1977	1,090	4	673	3	24,120	4
1,000 to 1,999 miles	1972	1,681	8	1,522	8	47,864	10
	1977	2,890	10	1,300	7	47,634	9
2,000 miles and over	1972	938	4	419	2	40,703	9
	1977	2,412	8	845	2	42,728	8
Outside U.S.	1972	363	2	--	-	18,436	4
	1977	1,257	4	--	-	17,862	3
Duration of trip							
No nights out of town	1972	3,945	18	3,945	20	82,699	18
	1977	4,031	13	3,064	15	100,844	19
1 to 2 nights	1972	9,390	44	9,096	45	194,916	43
	1977	12,398	41	8,750	44	220,311	41
3 to 5 nights	1972	4,493	21	4,236	21	100,837	22
	1977	6,880	23	4,485	23	119,473	22
6 to 15 nights	1972	2,938	14	2,518	12	64,418	14
	1977	5,274	18	2,950	15	78,465	15
16 nights or more	1972	605	3	400	2	15,613	3
	1977	1,469	5	551	3	20,232	4

TABLE XXVI-1. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-TRIPS: 1972 AND 1977 (cont.)

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Number on trip							
1 person	1972	4,295	20	4,098	20	120,020	26
	1977	8,839	29	6,496	33	186,400	35
2 persons	1972	5,862	27	5,581	28	130,574	28
	1977	9,382	31	5,883	30	164,400	30
3 persons or more	1972	11,216	52	10,517	52	207,890	45
	1977	11,832	39	7,420	37	118,489	35
Area of destination							
In an SMSA	1972	7,420	35	7,161	35	239,820	52
Not in an SMSA	1972	13,589	64	13,035	65	200,258	44
Outside U.S.	1972	363	2	--	-	18,405	4
Travel region of origin							
New England	1972	123	1	87	0	25,545	6
	1977	157	1	108	1	23,472	4
New York-New Jersey	1972	386	2	325	2	37,647	8
	1977	403	1	249	1	44,363	8
Mid-Atlantic	1972	484	2	417	2	45,674	10
	1977	361	1	338	2	53,263	10
South	1972	486	2	411	2	74,568	16
	1977	1,016	3	919	5	96,608	18
North Central	1972	19,442	91	18,601	92	113,234	25
	1977	27,290	91	17,599	89	127,679	24
Origination-Michigan	1977	20,165	67	11,645	59	n.a.	n.a.
Northwest	1972	91	0	67	0	21,508	5
	1977	227	1	173	1	28,854	5
Southwest	1972	206	1	182	1	67,703	15
	1977	285	1	241	1	79,905	15
Pacific	1972	153	1	105	1	72,604	16
	1977	314	1	171	1	85,146	16

TABLE XXVI-1. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-TRIPS: 1972 AND 1977 (cont.)

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
				Quarters			
First	1972	3,668	17	3,576	18	92,270	20
	1977	4,994	17	3,112	16	125,334	23
Second	1972	5,065	24	4,800	24	116,024	25
	1977	8,049	27	5,178	26	139,613	26
Third	1972	8,461	40	7,790	39	152,059	33
	1977	11,352	38	7,546	38	166,685	31
Fourth	1972	4,178	20	4,029	20	98,131	21
	1977	5,656	19	3,964	20	107,658	20
TOTAL	1972	21,371	100	20,195	100	458,483	100
	1977	30,052	100	19,800	100	539,290	100

SOURCE: U.S. Bureau of the Census, 1972 Census of Transportation, National Travel Survey, Travel during 1972 (Washington, D.C.: Superintendent of Documents, 1973), Tables 2 and 46; and U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, Travel during 1977 (Washington, D.C.: Superintendent of Documents, 1979), Tables 2A and 28.

TABLE XXVI-2. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-NIGHTS: 1972 AND 1977

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Major means of transportation							
Auto/truck (without camping equipment	1972	51,080	77	49,267	79	1,089,995	61
	1977	52,045	71	50,005	71	1,297,086	60
Auto/truck (with camping equipment	1972	6,979	11	6,246	10	176,995	10
	1977	5,813	8	5,319	8	179,633	8
Bus	1972	1,420	2	1,365	2	46,993	3
	1977	988	1	955	1	54,428	3
Train	1972	85	0	79	0	10,803	1
	1977	774	1	722	1	21,198	1
Air	1972	5,739	9	5,065	8	417,830	23
	1977	9,013	12	8,285	12	502,187	23
Other	1972	677	1	628	1	39,284	2
	1977	5,036	7	4,814	7	109,830	5
Main purpose of trip							
Visit friend/relative	1972	23,575	36	22,151	35	726,011	41
	1977	30,694	42	29,334	42	900,382	42
Bus. and conventions	1972	6,357	10	6,027	10	287,760	16
	1977	6,723	9	6,139	9	308,382	14
Outdoor recreation	1972	17,776	27	17,233	28	219,907	12
	1977	15,891	22	15,376	22	284,099	13
Sightseeing and entertainment	1972	3,695	6	2,830	5	266,072	15
	1977	6,577	9	5,733	8	300,632	14
Other	1972	14,578	22	14,410	23	282,150	16
	1977	13,785	19	13,519	19	370,868	17
Weekend or other trip							
Weekend trip	1972	23,645	36	22,749	36	489,544	27
	1977	19,025	26	18,685	27	438,252	20
Not weekend trip	1972	36,343	55	34,155	55	1,145,765	64
	1977	54,038	73	50,808	72	1,714,252	79
Not reported	1972	5,992	9	5,747	9	146,592	8
	1977	607	1	607	8	11,859	1

TABLE XXVI-2. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-NIGHTS: 1972 AND 1977 (cont.)

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Vacation or other trip							
Vacation	1972	40,927	62	38,294	61	1,098,926	62
	1977	46,341	63	43,532	62	1,348,996	62
Not a vacation	1972	22,189	34	21,707	35	637,390	36
	1977	26,540	36	25,779	37	800,077	37
Not reported	1972	2,863	4	2,649	4	45,584	3
	1977	788	1	788	1	15,289	1
Round-trip distance							
200 to 399 miles	1972	18,625	28	18,604	30	301,209	17
	1977	28,040	38	27,881	40	500,820	23
400 to 599 miles	1972	16,239	25	16,150	26	227,858	13
	1977	14,880	20	14,490	21	268,454	12
600 to 799 miles	1972	8,592	13	8,508	14	148,573	8
	1977	5,823	8	5,668	8	168,034	8
800 to 999 miles	1972	4,586	7	4,539	7	103,055	6
	1977	4,096	6	3,940	6	119,101	6
1,000 to 1,999 miles	1972	9,950	15	9,564	15	291,878	16
	1977	8,541	12	7,773	11	353,138	16
2,000 miles and over	1972	6,828	10	5,285	8	497,668	28
	1977	11,377	15	10,347	15	567,373	26
Outside U.S.	1972	1,159	2	--	--	211,659	12
	1977	913	1	--	--	188,442	9
Duration of trip							
No nights out of town	1972	--	--	--	--	--	--
	1977	--	--	--	--	--	--
1 to 2 nights	1972	15,543	24	15,064	24	308,030	17
	1977	14,215	19	14,120	20	351,548	16
3 to 5 nights	1972	15,265	23	14,747	24	372,359	21
	1977	16,354	22	15,666	22	437,034	20
6 to 15 nights	1972	22,228	34	21,315	34	585,271	33
	1977	25,690	35	24,199	35	705,775	33
16 nights or more	1972	12,942	20	11,523	18	516,240	29
	1977	17,410	24	16,115	23	670,005	31

TABLE XXVI-2. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-NIGHTS: 1972 AND 1977 (cont.)

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Number on trip							
1 person	1972	15,368	23	14,413	23	490,629	28
	1977	22,677	31	21,674	31	728,631	34
2 persons	1972	17,080	26	16,350	26	551,417	31
	1977	22,801	31	21,840	31	727,031	34
3 persons or more	1972	33,530	51	31,886	51	739,853	42
	1977	28,191	38	26,586	38	708,701	32
Area of destination							
In an SMSA	1972	18,043	27	17,450	28	879,982	49
Not in an SMSA	1972	46,777	71	45,201	72	691,065	39
Outside U.S.	1972	1,159	2	--	--	210,852	12
Travel region of origin							
New England	1972	313	0	267	0	97,742	5
	1977	774	1	725	1	103,218	5
New York-New Jersey	1972	1,708	3	1,584	3	203,965	11
	1977	1,344	2	1,196	2	219,723	10
Mid-Atlantic	1972	2,070	3	1,930	3	180,683	10
	1977	2,649	4	2,629	4	209,422	10
South	1972	3,754	6	3,424	5	277,215	16
	1977	8,825	12	8,529	12	375,453	17
North Central	1972	53,191	81	51,272	82	446,028	25
	1977	53,351	72	51,111	73	506,299	23
Origination-Michigan	1977	34,613	47	33,085	47	n.a.	n.a.
Northwest	1972	643	1	529	1	75,971	4
	1977	1,678	2	1,515	2	97,538	5
Southwest	1972	2,267	3	2,179	3	220,881	12
	1977	1,551	2	1,457	2	295,475	14
Pacific	1972	2,035	3	1,466	2	279,415	16
	1977	3,317	5	2,938	4	357,235	17

TABLE XXVI-2. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVEL, PERSON-NIGHTS: 1972 AND 1977 (cont.)

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
				Quarters			
First	1972	8,167	12	7,594	12	301,634	17
	1977	8,203	11	7,991	11	432,840	20
Second	1972	11,540	17	10,939	17	407,855	23
	1977	17,518	24	16,804	24	504,015	23
Third	1972	35,959	55	34,212	55	745,342	42
	1977	33,901	46	31,900	46	833,788	39
Fourth	1972	10,314	16	9,905	16	327,069	18
	1977	14,048	19	13,404	19	393,719	18
TOTAL	1972	65,979	100	62,650	100	1,781,900	100
	1977	73,669	100	70,100	100	2,164,362	100

SOURCE: U.S. Bureau of the Census, 1972 Census of Transportation, National Travel Survey, Travel during 1972 (Washington, D.C.: Superintendent of Documents, 1973), Tables 2 and 46; and U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, Travel during 1977 (Washington, D.C.: Superintendent of Documents, 1979), Tables 2A and 28.

n.a.: not available.

TABLE XXVI-3. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-TRIPS: 1972 AND 1977

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Family income							
Under $5,000	1972	1,523	7	1,408	7	38,175	8
	1977	1,265	4	826	4	35,218	7
5,000-7,499	1972	2,067	10	1,988	10	57,890	13
	1977	1,545	5	1,106	6	32,714	6
7,500-9,999	1972	3,656	17	3,460	17	74,053	16
	1977	2,044	7	1,159	6	33,205	6
10,000-14,999	1972	7,965	37	7,657	38	149,126	33
	1977	6,018	20	3,620	18	111,373	21
15,000 and over	1972	5,061	24	4,626	23	120,203	26
	1977	19,180	64	13,090	66	326,779	61
Not reported	1972	1,098	5	1,055	5	19,036	4
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Occupation of household head							
Professional, technical manager	1972	6,000	28	5,585	28	179,814	39
	1977	10,329	34	7,009	35	n.a.	n.a.
Farm-owners, managers, laborers	1972	707	3	665	3	11,213	2
	1977	408	1	264	1	n.a.	n.a.
Clerical sales	1972	3,203	15	2,912	14	71,113	16
	1977	4,001	13	2,682	14	n.a.	n.a.
Craftsmen, operatives, laborers	1972	7,850	37	7,632	38	120,479	26
	1977	8,251	27	5,701	29	n.a.	n.a.
Household & service employees	1972	1,153	5	1,125	6	15,318	3
	1977	1,814	6	907	5	n.a.	n.a.
Retired	1972	1,733	8	1,630	8	28,798	6
	1977	2,754	9	1,859	9	n.a.	n.a.
Others	1972	727	3	647	3	31,748	7
	1977	2,494	8	1,479	7	n.a.	n.a.

TABLE XXVI-3. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-TRIPS: 1972 AND 1977 (cont.)

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Size of household							
1 person	1972	1,047	5	985	5	25,793	6
	1977	2,514	8	1,668	8	186,400	35
2 persons	1972	3,810	18	3,642	18	100,194	22
	1977	7,400	25	4,938	25	164,400	30
3 to 5 persons	1972	12,919	60	12,145	60	259,734	57
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6 persons or more	1972	3,596	17	3,424	17	72,763	16
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Race of household head							
White	1972	20,176	94	19,044	94	434,416	95
	1977	27,912	93	18,645	94	505,491	94
Nonwhite	1972	865	4	820	4	19,323	4
	1977	2,140	7	1,115	6	33,798	6
Not reported	1972	332	2	332	2	4,745	1
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Age of traveler							
Under 18 years	1972	5,748	27	5,351	26	110,595	24
	1977	7,135	24	4,570	23	115,860	21
18 to 24 years	1972	1,655	8	1,595	8	38,435	8
	1977	4,127	14	3,027	15	62,061	12
25 to 34 years	1972	3,706	17	3,510	17	76,708	17
	1977	5,435	18	3,633	18	108,296	20
35 to 44 years	1972	2,762	13	2,622	13	72,872	16
	1977	4,069	14	2,540	13	84,782	16
45 to 54 years	1972	3,373	16	3,212	16	77,161	17
	1977	3,904	13	2,655	13	79,023	15
55 to 64 years	1972	2,364	11	2,250	11	44,952	10
	1977	3,441	11	1,977	10	55,809	10
65 years and older	1972	1,021	5	947	5	22,396	5
	1977	1,941	6	1,398	7	33,457	6
Not reported	1972	742	3	708	4	15,364	3
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

TABLE XXVI-3. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-TRIPS: 1972 AND 1977 (cont.)

Item	Year	Person-trips in Michigan: To and through the state, Number (000)	Person-trips in Michigan: To and through the state, Percentage of total	Person-trips in Michigan: Michigan destination, Number (000)	Person-trips in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Education of traveler							
Elementary school or less	1972	1,924	9	1,816	9	34,389	8
	1977	7,176	24	4,505	23	124,748	23
High school	1972	8,546	40	8,176	40	165,312	36
	1977	12,877	43	8,878	45	204,685	38
College	1972	5,830	27	5,452	27	160,238	35
	1977	9,999	33	6,417	32	209,856	39
Not reported	1972	5,071	24	7,451	24	98,545	21
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sex of traveler							
Male	1972	10,992	51	10,413	52	241,232	53
	1977	16,149	54	11,079	56	295,768	55
Female	1972	9,189	43	8,667	43	198,253	43
	1977	13,903	46	8,721	44	243,521	45
Not reported	1972	1,192	6	1,116	6	18,998	4
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Area of permanent residence							
In an SMSA	1972	16,239	76	15,487	77	305,889	67
	1977	22,087	73	14,962	76	376,079	70
Not in SMSA	1972	5,133	24	4,709	23	152,595	33
	1977	7,965	27	4,837	24	163,210	30
TOTAL	1972	21,371	100	20,195	100	458,483	100
	1977	30,052	100	19,800	100	539,289	100

SOURCE: U.S. Bureau of the Census, 1972 Census of Transportation, National Travel Survey, Travel during 1972 (Washington, D.C.: Superintendent of Documents, 1973), Tables 2 and 46; and U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, Travel during 1977 (Washington, D.C.: Superintendent of Documents, 1979), Tables 2A and 28.
n.a.: not available.

TABLE XXVI-4. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-NIGHTS: 1972 AND 1977

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Family income							
Under $5,000	1972	6,162	9	5,680	9	194,501	11
	1977	6,300	9	6,122	9	187,713	9
5,000-7,499	1972	6,652	10	6,481	10	220,161	12
	1977	3,212	4	3,064	4	169,440	8
7,500-9,999	1972	12,081	18	11,323	18	280,090	16
	1977	5,194	7	5,031	7	148,570	7
10,000-14,999	1972	21,537	33	20,622	33	531,816	30
	1977	13,484	18	12,908	18	427,064	20
15,000 and over	1972	16,419	25	15,630	25	470,510	26
	1977	45,479	62	42,975	61	1,231,575	57
Not reported	1972	3,127	5	2,914	5	84,821	5
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Occupation of household head							
Professional, technical manager	1972	20,360	31	19,474	31	657,255	37
	1977	20,575	28	19,364	28	n.a.	n.a.
Farm-owners, managers, laborers	1972	1,001	2	858	1	32,976	2
	1977	1,505	2	1,483	2	n.a.	n.a.
Clerical sales	1972	9,165	14	8,547	14	232,774	13
	1977	9,565	13	9,963	14	n.a.	n.a.
Craftsmen, operatives, laborers	1972	20,705	31	20,172	32	415,514	23
	1977	20,184	27	19,309	28	n.a.	n.a.
Household & service employees	1972	3,122	5	2,909	5	63,060	4
	1977	2,742	4	2,599	4	n.a.	n.a.
Retired persons	1972	8,015	12	7,681	12	216,397	12
	1977	10,124	14	9,904	14	n.a.	n.a.
Others	1972	3,612	5	3,010	5	163,973	9
	1977	8,975	12	8,579	12	n.a.	n.a.

TABLE XXVI-4. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-NIGHTS: 1972 AND 1977 (cont.)

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Size of household							
1 person	1972	4,494	7	4,300	7	133,814	8
	1977	8,101	11	7,787	11	728,631	34
2 persons	1972	13,061	20	12,156	19	458,755	26
	1977	19,191	26	18,029	26	727,031	34
3 to 5 persons	1972	37,023	56	35,079	56	933,773	52
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6 persons or more	1972	11,402	17	11,115	18	255,558	14
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Race of household head							
White	1972	62,435	95	59,320	95	1,682,952	94
	1977	67,311	91	63,904	91	2,029,556	94
Nonwhite	1972	2,947	4	2,733	4	77,225	4
	1977	6,358	9	6,169	9	134,806	6
Not reported	1972	597	1	597	1	21,723	1
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Age of traveler							
Under 18 years	1972	19,401	29	18,457	29	439,489	25
	1977	18,715	25	17,896	26	484,794	22
18 to 24 years	1972	5,012	8	4,885	8	143,568	8
	1977	8,540	12	8,290	12	219,551	10
25 to 34 years	1972	9,451	14	8,949	14	251,579	14
	1977	12,061	16	11,383	16	371,635	17
35 to 44 years	1972	7,782	12	7,512	12	229,591	13
	1977	7,098	10	6,585	9	271,304	13
45 to 54 years	1972	8,598	13	7,740	12	258,304	14
	1977	9,045	12	8,590	12	278,229	13
55 to 64 years	1972	6,878	10	6,637	11	212,213	12
	1977	6,982	9	6,593	9	268,080	12
65 years and older	1972	6,581	10	6,284	10	182,876	10
	1977	11,228	15	10,764	15	270,769	13
Not reported	1972	2,276	3	2,186	3	64,280	4
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

TABLE XXVI-4. SELECTED TRIP CHARACTERISTICS OF MICHIGAN AND U.S. TRAVELERS, PERSON-NIGHTS: 1972 AND 1977 (cont.)

Item	Year	Person-nights in Michigan: To and through the state, Number (000)	Person-nights in Michigan: To and through the state, Percentage of total	Person-nights in Michigan: Michigan destination, Number (000)	Person-nights in Michigan: Michigan destination, Percentage of total	Total United States, Number (000)	Total United States, Percentage of total
Education of traveler							
Elementary school or less	1972	6,172	9	5,877	9	168,109	9
	1977	19,949	27	19,046	27	555,792	26
High school	1972	26,178	40	24,571	39	638,771	36
	1977	32,070	44	30,957	35	816,070	38
College	1972	16,621	25	15,917	25	581,725	33
	1977	21,650	29	20,097	29	792,500	37
Not reported	1972	17,007	26	16,255	26	393,294	22
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sex of traveler							
Male	1972	30,728	47	29,467	47	855,888	48
	1977	38,080	52	36,354	52	1,091,090	50
Female	1972	31,923	48	30,041	48	846,471	48
	1977	35,589	48	33,746	48	1,073,273	50
Not reported	1972	3,328	5	3,142	5	79,540	4
	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Area of permanent residence							
In an SMSA	1972	51,556	78	49,539	79	1,260,489	71
	1977	55,573	75	52,935	76	1,568,092	72
Not in SMSA	1972	14,423	22	13,111	21	521,410	29
	1977	18,097	25	17,165	24	596,270	28
TOTAL	1972	65,979	100	62,650	100	1,781,900	100
	1977	73,669	100	70,100	100	2,164,362	100

SOURCE: U.S. Bureau of the Census, 1972 Census of Transportation, National Travel Survey, Travel during 1972 (Washington, D.C.: Superintendent of Documents, 1973), Tables 2 and 46; and U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, Travel during 1977 (Washington, D.C.: Superintendent of Documents, 1979), Tables 2A and 28.
n.a.: not available.

TABLE XXVI-5. RESIDENT AND NONRESIDENT PERSON-TRIPS PER CAPITA, BY STATE: 1977

State	Person-trips per capita		State	Person-trips per capita	
	Residents	Visitors		Residents	Visitors
Nevada	.12	12.63	Kansas	1.04	1.42
Washington, D.C.	--	7.77	Kentucky	.63	1.41
Vermont	.12	5.98	Montana	2.31	1.34
New Hampshire	.18	5.08	Minnesota	2.41	1.33
Wyoming	1.80	4.81	Idaho	1.83	1.28
Delaware	.29	3.43	Indiana	.55	1.28
North Dakota	1.99	2.54	Oregon	1.94	1.28
New Mexico	1.81	2.53	Washington	1.78	1.23
Maine	.66	2.50	Rhode Island	--	1.16
South Carolina	1.29	2.13	Louisiana	.92	1.10
Florida	1.16	2.17	Massachusetts	.17	1.10
Colorado	1.56	2.05	Pennsylvania	.63	1.10
Arkansas	1.09	2.02	Nebraska	2.56	1.09
Utah	1.47	2.01	Alabama	.96	1.07
Wisconsin	1.96	1.96	Illinois	.65	1.05
Hawaii	.27	1.95	Connecticut	--	1.00
South Dakota	1.83	1.88	Ohio	.77	1.00
Arizona	1.79	1.81	Maryland	.38	.99
Tennessee	.95	1.79	Michigan	1.27	.89
Oklahoma	1.88	1.67	New Jersey	.22	.82
Virginia	1.00	1.66	Texas	1.96	.80
Missouri	1.22	1.60	New York	.72	.79
West Virginia	.40	1.58	Alaska	.58	.54
Mississippi	.70	1.55	California	1.91	.45
Iowa	1.50	1.53			
Georgia	1.04	1.44	United States	1.12	1.29
North Carolina	1.27	1.44			

SOURCE: Developed from U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, Travel during 1977 (Washington, D.C.: Superintendent of Documents, 1979), Table 28; and U.S. Bureau of the Census, Current Population Reports, Series P-25, no. 794, Table 3.

TABLE XXVI-6. RANKING OF STATES ACCORDING TO PER CAPITA SALES RECEIPTS BY ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY: 1977

State	1972	1977	State	1972	1977
Nevada	1,380	2,721	New York	49	72
Hawaii	294	616	Texas	43	71
Dist. of Columbia	165	324	Missouri	47	69
Wyoming	182	311	Illinois	40	69
Alaska	110	230	Nebraska	40	65
Florida	141	186	Massachusetts	41	61
Vermont	128	176	Pennsylvania	38	60
Montana	72	134	Wisconsin	38	60
Arizona	84	129	Delaware	34	58
New Hampshire	91	119	Kentucky	34	57
Colorado	79	117	North Carolina	34	56
New Mexico	71	110	Arkansas	39	54
Maine	70	105	Oklahoma	33	54
South Carolina	45	94	West Virginia	33	54
Georgia	54	92	New Jersey	38	53
Virginia	52	89	Iowa	30	53
California	52	88	Indiana	27	51
Oregon	58	88	Maryland	30	50
Idaho	65	86	Kansas	30	50
South Dakota	51	84	Michigan	31	49
North Dakota	42	84	Mississippi	31	48
Louisiana	42	80	Ohio	27	47
Minnesota	49	76	Alabama	27	42
Tennessee	42	75	Connecticut	26	40
Utah	48	75	Rhode Island	24	39
Washington	42	73	United States	51	85

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington, D.C.: 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-7. RANKING OF STATES ACCORDING TO RECEIPTS BY ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY, AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Nevada	26.67	33.13	Texas	1.06	1.03
Hawaii	5.88	8.13	Arkansas	1.17	.99
Wyoming	4.18	4.11	Nebraska	.92	.97
Dist. of Columbia	2.99	3.62	New York	.95	.97
Vermont	3.26	3.02	Washington	.92	.97
Florida	3.16	2.77	Mississippi	1.01	.96
Alaska	2.11	2.20	Kentucky	.94	.95
Montana	1.78	2.20	North Carolina	.91	.95
Arizona	1.95	2.00	West Virginia	.90	.89
New Mexico	1.97	1.88	Wisconsin	.89	.88
Maine	1.93	1.84	Pennsylvania	.86	.86
New Hampshire	2.16	1.80	Illinois	.78	.86
South Carolina	1.28	1.66	Massachusetts	.85	.84
Colorado	1.74	1.62	Oklahoma	.85	.84
Georgia	1.37	1.51	Iowa	.72	.77
South Dakota	1.32	1.43	Delaware	.67	.75
North Dakota	.99	1.42	Alabama	.78	.74
Idaho	1.68	1.39	Indiana	.64	.74
Louisiana	1.20	1.33	Kansas	.68	.71
Virginia	1.19	1.28	New Jersey	.71	.67
Tennessee	1.12	1.28	Ohio	.60	.66
Utah	1.30	1.26	Maryland	.61	.66
Oregon	1.33	1.22	Michigan	.64	.65
California	1.04	1.11	Rhode Island	.54	.57
Minnesota	1.12	1.07	Connecticut	.49	.49
Missouri	1.11	1.05	United States	1.14	1.21

SOURCE: Developed from U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, United States, SC72-A-52 (Washington, D.C.: 1975), Table 3; U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Alabama through Wyoming, SC77-A-1 through SC77-A-51 (Washington, D.C.: 1979), Table 1; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-8. RANKING OF STATES ACCORDING TO PER CAPITA SALES OF EATING AND DRINKING PLACES: 1977

State	1972	1977	State	1972	1977
Alaska	255.52	614.48	Connecticut	172.95	286.99
Dist. of Columbia	344.67	553.46	Indiana	171.28	284.02
Hawaii	317.59	543.32	Delaware	184.38	282.23
Nevada	269.64	454.85	Iowa	157.80	279.23
Oregon	201.31	368.68	South Dakota	158.47	276.27
Washington	196.32	368.26	New York	207.69	276.21
Colorado	206.56	368.11	Missouri	162.89	274.02
California	224.51	367.88	Rhode Island	176.34	272.54
Wyoming	209.30	360.77	Vermont	155.80	265.81
Montana	213.69	358.58	Kansas	140.28	257.08
Florida	213.13	345.47	Oklahoma	140.60	253.76
Arizona	199.97	336.26	Louisiana	138.83	253.62
Wisconsin	208.57	328.12	Pennsylvania	160.26	253.61
Illinois	201.17	326.44	Georgia	142.99	248.07
Massachusetts	212.29	316.42	Utah	149.64	247.45
Nebraska	183.62	304.88	Virginia	133.18	243.23
Maryland	179.80	303.75	Maine	136.47	240.90
Idaho	174.65	303.35	Tennessee	125.97	230.64
New Hampshire	160.99	297.20	Kentucky	119.34	222.47
Michigan	178.30	294.71	North Carolina	114.44	213.39
New Jersey	194.15	292.74	South Carolina	109.00	203.86
North Dakota	159.79	291.82	West Virginia	107.79	189.91
Ohio	177.64	290.29	Alabama	99.19	187.33
Minnesota	170.37	290.20	Arkansas	99.15	178.74
New Mexico	160.03	288.37	Mississippi	82.80	155.35
Texas	153.36	287.22	United States	177.05	292.42

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retailed Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-9. RANKING OF STATES ACCORDING TO SALES BY EATING AND DRINKING PLACES, AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Hawaii	6.36	7.17	Indiana	3.97	4.11
Dist. of Columbia	6.24	6.17	Georgia	3.63	4.10
Montana	5.32	5.89	Minnesota	3.91	4.09
Alaska	5.12	5.88	Ohio	3.93	4.09
Nevada	5.21	5.54	Iowa	3.74	4.06
Arizona	4.62	5.21	Illinois	3.96	4.06
Florida	4.78	5.13	Rhode Island	3.99	4.05
Colorado	4.55	5.12	Maryland	3.64	3.98
Oregon	4.64	5.11	Oklahoma	3.66	3.96
North Dakota	3.77	4.96	Tennessee	3.41	3.93
New Mexico	4.45	4.92	Michigan	3.71	3.88
Idaho	4.50	4.89	Kentucky	3.31	3.74
Washington	4.34	4.87	New York	4.01	3.70
Wisconsin	4.83	4.84	New Jersey	3.65	3.70
Wyoming	4.79	4.76	Delaware	3.62	3.69
South Dakota	4.11	4.73	Kansas	3.14	3.65
California	4.47	4.60	Pennsylvania	3.60	3.62
Nebraska	4.20	4.57	South Carolina	3.09	3.61
Vermont	3.99	4.57	North Carolina	3.01	3.60
New Hampshire	3.83	4.49	Connecticut	3.23	3.56
Massachusetts	4.40	4.39	Virginia	3.04	3.51
Louisiana	3.97	4.23	Alabama	2.89	3.31
Maine	3.75	4.21	Arkansas	3.00	3.27
Utah	4.01	4.20	West Virginia	2.98	3.16
Missouri	3.89	4.17	Mississippi	2.67	3.09
Texas	3.78	4.17	United States	3.94	4.15

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977 Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retailed Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-10. RANKING OF STATES ACCORDING TO PER CAPITA SALES OF GASOLINE SERVICE STATIONS: 1977

State	1972	1977	State	1972	1977
Wyoming	291.44	528.22	Wisconsin	156.01	269.21
Nevada	278.00	462.45	Texas	172.05	268.96
Montana	209.25	355.31	Tennessee	163.76	268.12
South Dakota	210.21	349.95	Georgia	182.01	267.99
Nebraska	212.06	340.73	West Virginia	149.02	266.23
Iowa	207.68	330.36	Connecticut	163.90	262.01
Indiana	187.17	318.11	California	168.54	261.92
Missouri	186.94	310.40	Idaho	184.90	260.46
North Dakota	195.71	310.00	Washington	167.75	257.27
New Mexico	212.22	306.30	South Carolina	159.33	250.77
Minnesota	183.60	299.97	Alaska	163.34	249.02
Kentucky	164.68	294.31	North Carolina	151.65	246.62
Maryland	168.99	292.47	New Jersey	150.02	245.79
Ohio	164.27	291.40	Pennsylvania	149.90	242.20
Virginia	168.37	290.70	Oklahoma	166.52	232.60
Vermont	189.02	289.52	Rhode Island	131.03	231.02
Utah	169.01	289.07	Arkansas	167.99	230.32
Kansas	202.20	285.09	Maine	157.95	225.10
Michigan	164.09	283.22	Massachusetts	137.58	223.25
Arizona	180.93	282.70	Alabama	135.46	219.57
Florida	182.95	281.89	Louisiana	137.00	218.39
New Hampshire	176.57	279.12	Dist. of Columbia	129.22	201.98
Delaware	175.89	277.51	Hawaii	129.63	197.62
Oregon	179.75	274.54	Mississippi	134.85	190.33
Illinois	160.14	270.84	New York	110.14	166.40
Colorado	174.91	269.72	United States	161.62	260.96

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-11. RANKING OF STATES ACCORDING TO SALES BY GASOLINE SERVICE STATIONS, AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Wyoming	6.68	6.98	Kansas	4.52	4.05
South Dakota	5.45	5.99	Wisconsin	3.65	3.97
Montana	5.21	5.83	Maine	4.34	3.93
Nevada	5.37	5.63	Texas	4.24	3.90
North Dakota	4.61	5.26	Alabama	3.94	3.88
New Mexico	5.90	5.22	Maryland	3.42	3.84
Nebraska	4.85	5.11	Oregon	4.14	3.81
Vermont	4.84	4.98	Mississippi	4.35	3.79
Kentucky	4.57	4.94	Colorado	3.85	3.75
Utah	4.53	4.90	Michigan	3.41	3.73
Iowa	4.92	4.80	Louisiana	3.92	3.65
Missouri	4.47	4.73	Oklahoma	4.34	3.63
Indiana	4.34	4.61	Delaware	3.45	3.63
Tennessee	4.43	4.56	Pennsylvania	3.37	3.46
South Carolina	4.52	4.44	Rhode Island	2.97	3.43
West Virginia	4.12	4.44	Washington	3.71	3.40
Georgia	4.62	4.42	Illinois	3.15	3.37
Arizona	4.18	4.38	California	3.36	3.27
Minnesota	4.21	4.23	Connecticut	3.06	3.25
New Hampshire	4.20	4.22	New Jersey	2.82	3.10
Arkansas	5.08	4.21	Massachusetts	2.85	3.10
Idaho	4.77	4.20	Hawaii	2.60	2.61
Virginia	3.85	4.20	Alaska	3.14	2.38
Florida	4.10	4.19	Dist. of Columbia	2.34	2.25
North Carolina	3.99	4.16	New York	2.13	2.23
Ohio	3.64	4.10	United States	3.60	3.71

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-12. RANKING OF STATES ACCORDING TO PER CAPITA SALES OF FOOD STORES: 1977

State	1972	1977	State	1972	1977
Alaska	535.32	1,032.93	Michigan	521.65	722.32
New Hampshire	640.83	971.34	Kentucky	434.53	718.11
Nevada	609.94	930.23	Pennsylvania	477.06	703.94
Florida	542.71	828.68	New York	518.87	703.27
Arizona	520.62	821.29	South Carolina	447.40	702.72
Delaware	562.38	814.46	New Mexico	439.71	701.50
Vermont	567.92	806.41	Tennessee	450.87	700.52
Maine	530.81	804.42	North Carolina	438.83	694.68
New Jersey	538.33	795.63	Georgia	433.36	685.37
California	521.21	788.91	Indiana	454.75	685.10
Washington	507.21	786.53	Missouri	447.63	683.32
Louisiana	487.52	783.50	Iowa	432.26	681.96
Montana	498.52	782.30	Rhode Island	446.86	681.93
Connecticut	532.16	778.30	Arkansas	440.46	675.22
Maryland	511.28	773.11	Illinois	464.53	674.26
Wyoming	449.11	772.34	Wisconsin	442.12	664.08
Idaho	459.14	769.37	Alabama	418.55	661.06
Colorado	482.88	764.97	Kansas	430.08	655.96
Oregon	553.45	763.82	Mississippi	419.22	650.41
Texas	476.22	760.39	Utah	419.60	646.11
Oklahoma	454.46	744.09	Nebraska	404.69	625.05
West Virginia	446.01	741.51	Minnesota	409.11	616.97
Ohio	472.96	732.80	South Dakota	383.35	590.02
Hawaii	503.97	730.93	North Dakota	365.38	568.94
Massachusetts	502.81	728.79	Dist. of Columbia	398.62	517.84
Virginia	462.58	728.61	United States	483.68	729.51

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1976), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-13. RANKING OF STATES ACCORDING TO SALES BY FOOD STORES, AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
New Hampshire	15.25	14.68	Missouri	10.63	10.41
Maine	14.58	14.05	Washington	11.20	10.40
Vermont	14.53	13.86	Ohio	10.47	10.32
Louisiana	13.86	13.08	Wyoming	10.29	10.20
Mississippi	13.54	12.94	Maryland	11.35	10.14
Montana	12.41	12.85	Rhode Island	10.11	10.12
Arizona	12.03	12.73	Massachusetts	10.42	10.12
South Carolina	12.69	12.43	South Dakota	9.94	10.09
Idaho	11.84	12.41	Pennsylvania	10.71	10.06
West Virginia	12.34	12.36	New Jersey	10.11	10.05
Arkansas	13.31	12.34	Indiana	10.54	9.92
Florida	12.17	12.32	Iowa	10.24	9.92
Kentucky	12.06	12.06	Alaska	10.28	9.89
New Mexico	12.22	11.96	California	10.39	9.86
Tennessee	12.20	11.93	Wisconsin	10.35	9.80
North Carolina	11.55	11.72	North Dakota	8.62	9.66
Alabama	12.17	11.67	Connecticut	9.94	9.66
Oklahoma	11.85	11.61	Hawaii	10.09	9.65
Nevada	11.78	11.33	Michigan	10.84	9.51
Georgia	10.99	11.31	New York	10.02	9.43
Texas	11.75	11.03	Nebraska	9.26	9.37
Utah	11.25	10.96	Kansas	9.62	9.32
Delaware	11.04	10.64	Minnesota	9.39	8.70
Colorado	10.63	10.63	Illinois	9.15	8.38
Oregon	12.74	10.59	Dist. of Columbia	7.21	5.78
Virginia	10.57	10.52	United States	10.77	10.37

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, United States (Washington, D.C.: 1978), RC77-A-52, Table 4; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, United States (Washington, D.C.: 1975), RC72-A-52, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXVI-14. RANKING OF STATES ACCORDING TO PER CAPITA SALES OF THE COMBINATION OF GASOLINE SERVICE STATIONS, EATING AND DRINKING PLACES, AND ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY: 1977

State	1972	1977	State	1972	1977
Nevada	1927.91	3638.55	Ohio	369.08	628.71
Hawaii	741.06	1356.91	Texas	368.37	627.42
Wyoming	683.18	1200.44	Michigan	373.19	627.40
Alaska	539.87	1093.75	Virginia	353.67	622.75
District of Columbia	639.27	1079.58	Delaware	394.41	617.33
Montana	494.48	847.70	Utah	366.98	611.04
Florida	537.11	813.64	Georgia	379.07	607.78
Colorado	460.55	754.44	Massachusetts	390.85	600.37
Arizona	465.11	747.76	Kansas	372.76	591.95
Vermont	472.35	731.05	New Jersey	382.03	591.78
Oregon	438.63	730.96	Connecticut	363.16	588.67
California	445.16	718.29	Tennessee	331.32	574.07
Nebraska	435.72	710.34	Kentucky	317.99	573.58
South Dakota	419.38	710.04	Maine	364.51	571.14
New Mexico	443.18	704.81	Pennsylvania	348.63	556.19
Washington	405.94	698.67	Louisiana	317.86	551.95
New Hampshire	428.15	695.57	South Carolina	313.42	548.62
North Dakota	397.65	685.41	Rhode Island	331.24	542.07
Illinois	401.17	666.40	Oklahoma	339.67	540.37
Minnesota	402.78	665.99	North Carolina	300.55	516.39
Iowa	395.90	662.83	New York	367.05	514.83
Wisconsin	402.78	656.84	West Virginia	289.36	509.84
Missouri	396.38	653.57	Arkansas	305.88	463.23
Indiana	385.87	653.22	Alabama	261.45	448.95
Idaho	424.61	650.20	Mississippi	249.00	393.77
Maryland	378.80	646.39	United States	389.76	638.67

SOURCE: Developed from Tables XXVI-7, XXVI-8, and XXVI-10.

TABLE XXVI-15. RANKING OF STATES ACCORDING TO SALES BY THE COMBINATION OF GASOLINE SERVICE STATIONS, EATING AND DRINKING PLACES, AND ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY, AS A PERCENTAGE OF PERSONAL INCOME: 1977

State	1972	1977	State	1972	1977
Nevada	37.25	44.30	Indiana	8.94	9.46
Hawaii	14.84	17.91	Minnesota	9.24	9.39
Wyoming	15.65	15.85	Washington	8.97	9.24
Montana	12.31	13.92	Louisiana	9.10	9.22
Vermont	12.08	12.56	Texas	9.09	9.10
South Dakota	10.88	12.15	Virginia	8.08	8.99
Florida	12.04	12.09	California	8.87	8.98
District of Columbia	11.57	12.04	Ohio	8.17	8.85
New Mexico	12.32	12.02	North Carolina	7.91	8.71
North Dakota	9.38	11.64	West Virginia	8.00	8.50
Arizona	10.75	11.59	Maryland	7.67	8.48
Nebraska	9.97	10.65	Arkansas	9.24	8.46
New Hampshire	10.19	10.51	Oklahoma	8.85	8.43
Idaho	10.94	10.49	Kansas	8.34	8.41
Colorado	10.13	10.48	Massachusetts	8.10	8.33
Alaska	10.37	10.47	Illinois	7.90	8.28
Utah	9.84	10.36	Michigan	7.76	8.26
Oregon	10.10	10.14	Delaware	7.74	8.07
Georgia	9.61	10.03	Rhode Island	7.50	8.05
Maine	10.01	9.97	Pennsylvania	7.83	7.95
Missouri	9.47	9.95	Alabama	7.60	7.93
Tennessee	8.96	9.77	Mississippi	8.04	7.83
South Carolina	8.89	9.71	New Jersey	7.18	7.47
Wisconsin	9.43	9.70	Connecticut	6.79	7.30
Iowa	9.38	9.64	New York	7.09	6.90
Kentucky	8.83	9.63	United States	8.68	9.07

SOURCE: Developed from Tables XXVI-7, XXVI-8, and XXVI-10.

TABLE XXVI-16. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA RECEIPTS BY ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY: 1977

County	1972	1977	County	1972	1977
Mackinac	588.35	932.69	Presque Isle	(D)	22.62
Leelanau	187.30	242.31	Montmorency	53.86	20.41
Benzie	91.36	235.28	Ionia	14.31	19.94
Gogebic	59.17	171.58	Macomb	14.03	17.46
Wexford	112.62	154.78	Gladwin	20.00	15.37
Schoolcraft	133.69	140.67	Newaygo	14.48	14.52
Manistee	93.22	126.58	Cass	10.93	13.90
Mason	61.58	118.45	Barry	13.78	13.81
Roscommon	137.22	118.42	Eaton	4.88	13.24
Luce	66.93	106.30	Hillsdale	9.64	12.39
Chippewa	62.22	96.27	Montcalm	10.92	12.17
Dickinson	71.24	94.80	Clinton	6.45	3.41
Clare	89.84	85.02	Emmet	416.62	(D)
Washtenaw	43.35	78.84	Charlevoix	277.08	(D)
Delta	59.14	78.45	Keweenaw	246.52	(D)
Kalkaska	43.55	76.91	Antrim	242.65	(D)
Oakland	27.41	68.63	Crawford	233.71	(D)
Alpena	39.40	63.57	Otsego	195.78	(D)
Kalamazoo	27.54	61.59	Grand Traverse	152.98	(D)
Houghton	44.56	60.29	Cheboygan	151.96	(D)
Arenac	29.58	55.66	Ontonagon	78.52	(D)
Iosco	47.85	54.70	Alger	51.33	(D)
Lake	54.53	51.83	Livingston	42.93	(D)
Wayne	26.51	46.35	Berrien	42.34	(D)
Iron	35.04	46.03	Midland	41.73	(D)
Bay	12.37	45.46	Alcona	37.53	(D)
Kent	30.29	42.04	Marquette	31.69	(D)
Ingham	40.73	42.03	Huron	28.30	(D)
Saginaw	31.89	42.01	St. Joseph	27.22	(D)
Mecosta	24.25	41.52	Allegan	17.99	(D)
Ogemaw	23.31	41.24	Genesee	15.48	(D)
Oceana	28.49	40.71	Shiawassee	14.71	(D)
Oscoda	55.38	35.47	Menominee	13.25	(D)
Jackson	23.10	34.95	Branch	13.21	(D)
Ottawa	33.80	34.63	Lenawee	12.92	(D)
Calhoun	35.08	32.88	Gratiot	10.90	(D)
Baraga	14.68	28.45	Sanilac	8.04	(D)
Muskegon	20.46	27.77	Osceola	6.79	(D)
Missaukee	13.38	27.66	Lapeer	5.44	(D)
Monroe	19.29	25.57	Tuscola	4.33	(D)
Van Buren	22.96	25.20	Isabella	(D)	(D)
St. Clair	34.19	24.98	Michigan	30.80	49.47
			United States	51.09	85.28

SOURCE: Developed from U.S. Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7; U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.
(D): WithHeld to avoid disclosing data for individual companies.

TABLE XXVI-17. RANKING OF MICHIGAN COUNTIES ACCORDING TO RECEIPTS BY ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY, AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Mackinac	17.83	17.81	St. Clair	.83	.39
Leelanau	4.80	3.92	Monroe	.44	.37
Benzie	4.25	2.39	Ionia	.42	.37
Gogebic	1.66	3.19	Gladwin	.62	.33
Schoolcraft	4.25	2.84	Newaygo	.40	.29
Wexford	3.32	2.68	Barry	.36	.24
Roscommon	4.03	2.54	Montcalm	.30	.22
Manistee	2.66	2.25	Macomb	.27	.21
Mason	1.70	2.25	Cass	.25	.21
Chippewa	1.91	2.03	Hillsdale	.25	.21
Luce	2.05	1.84	Eaton	.11	.19
Clare	2.86	1.78	Clinton	.14	.05
Kalkaska	1.45	1.65	Emmet	10.28	(D)
Delta	1.71	1.45	Keweenaw	8.16	(D)
Dickinson	1.82	1.45	Charlevoix	7.50	(D)
Houghton	1.50	1.25	Crawford	7.48	(D)
Lake	1.77	1.20	Antrim	7.03	(D)
Alpena	1.08	1.10	Otsego	5.45	(D)
Iosco	1.34	1.07	Cheboygan	4.53	(D)
Mecosta	.89	1.03	Grand Traverse	3.46	(D)
Arenac	.89	.99	Ontonagon	2.29	(D)
Washtenaw	.86	.98	Alger	1.71	(D)
Oscoda	2.02	.89	Alcona	1.29	(D)
Ogemaw	.77	.89	Livingston	.99	(D)
Iron	1.10	.87	Berrien	.91	(D)
Kalamazoo	.60	.82	Marquette	.87	(D)
Oceana	.87	.81	Midland	.86	(D)
Oakland	.44	.71	Huron	.75	(D)
Bay	.30	.66	St. Joseph	.63	(D)
Missaukee	.44	.63	Allegan	.49	(D)
Kent	.65	.60	Menominee	.41	(D)
Baraga	.40	.56	Branch	.35	(D)
Wayne	.51	.56	Shiawassee	.34	(D)
Saginaw	.69	.56	Genesee	.32	(D)
Ingham	.85	.55	Lenawee	.29	(D)
Ottawa	.76	.52	Gratiot	.26	(D)
Jackson	.50	.51	Osceola	.22	(D)
Presque Isle	(D)	.48	Sanilac	.21	(D)
Muskegon	.51	.45	Lapeer	.13	(D)
Calhoun	.74	.44	Tuscola	.11	(D)
Van Buren	.61	.43	Isabella	(D)	(D)
Montmorency	1.64	.42	Michigan	4.00	10.42
			United States	11.37	12.14

SOURCE: Bureau of the Census, Census of Service Industries, 1977, Geographic Area Series, Michigan (Washington, D.C.: 1979), SC77-A-23, Table 7; U.S. Bureau of the Census, Census of Selected Service Industries, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), SC72-A-23, Table 5; and Bureau of Economic Analysis, Regional Economics Information System.
(D): Withheld to avoid disclosing data for individual companies.

TABLE XXVI-18. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA SALES OF EATING AND DRINKING PLACES: 1977

County	1972	1977	County	1972	1977
Otsego	369	573	Muskegon	149	251
Emmet	338	533	Gogebic	154	250
Mackinac	388	531	Iosco	190	247
Roscommon	423	486	Alger	213	246
Grand Traverse	n.a.	471	Chippewa	190	246
Cheboygan	280	460	Branch	134	245
Crawford	276	454	Houghton	125	239
Oakland	196	372	Gratiot	156	239
Saginaw	188	372	Livingston	140	238
Lake	247	370	Huron	150	236
Montmorency	243	364	Menominee	123	236
Washtenaw	196	361	Ottawa	112	233
Ingham	218	354	Alcona	111	233
Oscoda	179	350	Clare	244	230
Calhoun	205	341	Iron	153	230
Kent	196	341	Kalkaska	212	225
Mason	202	334	Luce	198	222
St. Clair	244	334	Ontonagon	142	214
Kalamazoo	189	333	Montcalm	146	209
Eaton	162	321	Midland	112	206
Benzie	209	321	Cass	141	203
Wexford	190	319	Manistee	144	199
Berrien	195	305	Gladwin	113	198
Alpena	198	305	Monroe	140	187
Genesee	174	305	Ionia	123	184
Isabella	149	303	Allegan	128	182
Keweenaw	n.a.	294	St. Joseph	100	181
Sanilac	174	293	Van Buren	117	179
Macomb	168	291	Lapeer	107	178
Leelanau	174	291	Presque Isle	122	173
Marquette	139	286	Newaygo	113	171
Bay	175	286	Hillsdale	123	167
Wayne	190	285	Tuscola	90	160
Dickinson	142	276	Oceana	106	154
Arenac	179	272	Shiawassee	107	148
Charlevoix	194	271	Clinton	80	144
Mecosta	145	269	Osceola	99	142
Baraga	198	263	Missaukee	103	140
Antrim	192	259	Barry	83	121
Lenawee	174	259	Ogemaw	198	n.a.
Jackson	180	256	Schoolcraft	152	n.a.
Delta	160	256	Michigan	178	295
			United States	177	292

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-19. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES BY EATING AND DRINKING PLACES, AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Roscommon	12.44	10.45	Washtenaw	3.91	4.49
Mackinac	11.77	10.15	Kalamazoo	4.11	4.46
Otsego	10.28	9.85	Iron	4.80	4.34
Crawford	8.84	9.28	Dickinson	3.61	4.21
Cheboygan	8.34	8.95	Gladwin	3.50	4.21
Oscoda	6.55	8.76	Bay	4.23	4.12
Lake	8.04	8.56	Muskegon	3.71	4.06
Emmet	8.34	8.45	Huron	3.95	3.92
Montmorency	7.39	7.42	Lenawee	3.95	3.87
Grand Traverse	n.a.	6.83	Luce	6.09	3.84
St. Clair	7.74	6.75	Oakland	3.15	3.82
Mecosta	5.35	6.71	Branch	3.58	3.77
Keweenaw	n.a.	6.44	Gratiot	3.74	3.75
Mason	5.58	6.34	Jackson	3.89	3.73
Isabella	4.75	6.15	Montcalm	4.00	3.72
Benzie	5.43	5.79	Genesee	3.61	3.70
Alger	7.07	5.67	Presque Isle	3.97	3.69
Wexford	5.62	5.54	Livingston	3.21	3.57
Alpena	5.43	5.27	Macomb	3.22	3.54
Chippewa	5.83	5.19	Manistee	4.10	3.54
Baraga	5.40	5.18	Ottawa	2.52	3.51
Alcona	3.83	4.97	Wayne	3.66	3.42
Marquette	3.83	4.96	Newaygo	3.12	3.41
Houghton	4.20	4.95	Ionia	3.62	3.39
Saginaw	4.07	4.91	Missaukee	3.41	3.18
Iosco	5.33	4.84	Allegan	3.47	3.17
Arenac	5.38	4.84	Cass	3.18	3.10
Kalkaska	7.04	4.83	Osceola	3.21	3.09
Kent	4.21	4.83	Oceana	3.24	3.08
Clare	7.76	4.82	Van Buren	3.09	3.06
Antrim	5.56	4.80	Lapeer	2.58	2.79
Charlevoix	5.25	4.78	Hillsdale	3.17	2.77
Delta	4.64	4.73	Monroe	3.19	2.73
Leelanau	4.45	4.72	St. Joseph	2.29	2.73
Ingham	4.56	4.65	Midland	2.30	2.60
Gogebic	4.30	4.63	Shiawassee	2.82	2.60
Menominee	3.81	4.59	Tuscola	2.25	2.52
Eaton	3.55	4.59	Clinton	1.80	2.22
Calhoun	4.31	4.57	Barry	2.17	2.14
Ontonagon	4.13	4.57	Ogemaw	6.55	n.a.
Sanilac	4.22	4.56	Schoolcraft	3.52	n.a.
Berrien	4.20	4.53	Michigan	3.71	3.88
			United States	3.94	4.16

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-20. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA SALES OF GASOLINE SERVICE STATIONS: 1977

County	1972	1977	County	1972	1977
Iron	256	843	Gogebic	197	282
Otsego	441	833	Kalamazoo	268	274
Crawford	515	698	Menominee	113	274
Mackinac	425	658	Gladwin	160	273
Arenac	540	635	Saginaw	157	267
Missaukee	189	612	Tuscola	151	267
Emmet	284	564	Kent	191	265
Leelanau	177	551	Huron	187	262
Wexford	231	510	Clare	393	261
Ogemaw	269	490	Ingham	163	259
Roscommon	407	482	Osceola	183	255
Cheboygan	404	437	Sanilac	127	254
Baraga	228	435	Midland	206	253
Grand Traverse	222	410	Alpena	161	253
Alger	316	403	Wayne	141	251
Ontonagon	166	392	Clinton	152	245
Eaton	182	376	Chippewa	154	243
Delta	245	367	Kalkaska	320	242
Berrien	217	352	Van Buren	174	239
Gratiot	150	351	Ionia	133	233
Calhoun	181	338	Isabella	138	233
Keweenaw	107	332	Oscoda	182	230
Dickinson	186	325	Mason	172	229
Oakland	172	322	Lake	217	220
Washtenaw	171	321	Alcona	317	216
Schoolcraft	174	314	St. Joseph	120	216
Marquette	153	313	St. Clair	211	215
Macomb	163	305	Antrim	245	214
Manistee	219	303	Ottawa	143	211
Montmorency	214	302	Muskegon	161	205
Bay	163	301	Branch	188	198
Genesee	180	300	Shiawassee	139	190
Allegan	201	298	Hillsdale	138	189
Iosco	190	297	Newaygo	190	175
Charlevoix	193	297	Presque Isle	144	172
Houghton	157	293	Barry	106	170
Benzie	249	293	Cass	98	147
Montcalm	162	288	Oceana	159	140
Jackson	169	288	Luce	70	62
Monroe	139	286	Lapeer	147	n.a.
Lenawee	168	285	Livingston	166	n.a.
Mecosta	155	283	Michigan	164	283
			United States	162	261

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-21. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES BY GASOLINE SERVICE STATIONS, AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Iron	8.03	15.93	Isabella	4.38	4.73
Otsego	12.28	14.32	Alcona	11.25	4.63
Crawford	16.47	14.27	Calhoun	3.79	4.54
Missaukee	6.25	13.95	Alpena	4.42	4.36
Mackinac	12.88	12.56	Mason	4.76	4.36
Arenac	16.25	11.30	St. Clair	6.69	4.35
Ogemaw	8.92	10.63	Bay	3.92	4.34
Roscommon	11.97	10.35	Huron	4.93	4.33
Alger	10.49	9.30	Ionia	3.89	4.29
Emmet	7.00	8.93	Lenawee	3.82	4.26
Leelanau	4.52	8.92	Tuscola	3.79	4.19
Wexford	6.81	8.85	Jackson	3.67	4.19
Baraga	6.22	8.57	Monroe	3.16	4.18
Cheboygan	12.04	8.51	Van Buren	4.60	4.08
Ontonagon	4.85	8.38	Washtenaw	3.42	3.99
Keweenaw	6.84	7.26	Antrim	7.09	3.96
Mecosta	5.72	7.04	Sanilac	3.08	3.96
Delta	7.09	6.78	Clinton	3.41	3.79
Montmorency	6.50	6.17	Kent	4.11	3.76
Houghton	5.26	6.09	Macomb	3.14	3.71
Grand Traverse	5.01	5.95	Kalamazoo	3.67	3.67
Iosco	5.32	5.82	Presque Isle	4.70	3.66
Gladwin	4.93	5.78	Genesee	3.72	3.64
Oscoda	6.65	5.75	Saginaw	3.38	3.53
Osceola	5.96	5.55	Newaygo	5.27	3.50
Gratiot	3.61	5.51	Ingham	3.42	3.40
Clare	12.50	5.47	Shiawassee	3.64	3.34
Marquette	4.20	5.42	Muskegon	4.00	3.32
Eaton	4.00	5.38	Oakland	2.76	3.30
Manistee	6.26	5.37	St. Joseph	2.76	3.26
Menominee	3.52	5.33	Midland	4.23	3.19
Benzie	6.51	5.29	Ottawa	3.22	3.18
Gogebic	5.52	5.24	Hillsdale	3.53	3.13
Charlevoix	5.21	5.24	Branch	5.03	3.05
Berrien	4.66	5.22	Barry	2.77	3.02
Kalkaska	10.66	5.21	Wayne	2.72	3.02
Allegan	5.45	5.20	Oceana	4.88	2.80
Chippewa	4.70	5.13	Cass	2.21	2.24
Montcalm	4.43	5.13	Luce	2.15	1.08
Lake	7.05	5.09	Lapeer	3.53	n.a.
Dickinson	4.75	4.96	Livingston	3.83	n.a.
Schoolcraft	4.01	4.74	Michigan	3.41	3.73
			United States	3.60	3.71

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-22. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA SALES OF FOOD STORES: 1977

County	1972	1977	County	1972	1977
Roscommon	934	1,209	Manistee	597	713
Wexford	781	1,157	Montcalm	680	691
Ogemaw	845	1,120	Kent	645	686
Emmet	787	1,090	St. Joseph	444	685
Cheboygan	863	1,060	Chippewa	449	683
Luce	486	1,025	Wayne	481	683
Otsego	697	1,013	Sanilac	474	681
St. Clair	590	976	Gratiot	521	667
Clare	659	966	Dickinson	554	665
Crawford	703	960	Gogebic	627	662
Benzie	582	943	Marquette	400	662
Alpena	635	928	Kalamazoo	550	659
Macomb	573	917	Calhoun	559	653
Iron	592	907	Livingston	430	652
Charlevoix	517	900	Shiawassee	510	649
Alger	640	869	Washtenaw	585	645
Mackinac	540	867	Menominee	444	641
Oakland	554	828	Osceola	433	641
Mason	636	825	Lapeer	423	639
Grand Traverse	763	819	Isabella	403	638
Berrien	541	813	Muskegon	574	635
Delta	636	802	Newaygo	397	619
Lenawee	669	796	Hillsdale	392	616
Saginaw	523	794	Montmorency	506	594
Schoolcraft	579	791	Ingham	450	583
Houghton	521	791	Mecosta	496	582
Arenac	451	785	Branch	405	579
Ionia	457	778	Clinton	400	572
Baraga	599	777	Jackson	514	570
Kalkaska	410	775	Cass	440	563
Genesee	543	775	Ontonagon	509	563
Eaton	366	774	Barry	371	554
Midland	543	769	Missaukee	427	546
Antrim	483	761	Monroe	381	542
Oscoda	445	760	Tuscola	452	537
Bay	519	739	Allegan	453	526
Oceana	532	738	Alcona	325	524
Van Buren	515	735	Leelanau	626	514
Gladwin	516	734	Ottawa	597	464
Presque Isle	524	730	Keweenaw	284	n.a.
Huron	490	730	Lake	368	n.a.
Iosco	500	713	Michigan	522	722
			United States	484	730

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-23. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES BY FOOD STORES, AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Roscommon	27.45	25.96	Berrien	11.64	12.06
Ogemaw	27.99	24.27	Ontonagon	14.84	12.02
Cheboygan	25.73	20.66	Schoolcraft	13.37	11.96
Clare	20.98	20.22	Lenawee	15.17	11.92
Alger	21.26	20.08	Grand Traverse	17.26	11.87
Wexford	23.05	20.08	Marquette	11.02	11.45
St. Clair	18.73	19.74	Shiawassee	13.38	11.39
Crawford	22.48	19.63	Alcona	11.18	11.19
Oscoda	16.27	19.00	Macomb	11.01	11.16
Luce	14.91	17.77	Eaton	8.04	11.06
Otsego	19.41	17.42	Bay	12.50	10.66
Emmet	19.42	17.27	Sanilac	11.51	10.59
Iron	18.57	17.14	Saginaw	11.31	10.50
Benzie	15.23	17.01	Gratiot	12.50	10.47
Kalkaska	13.65	16.65	St. Joseph	10.24	10.32
Mackinac	16.37	16.55	Muskegon	14.25	10.29
Houghton	17.48	16.41	Hillsdale	10.08	10.19
Alpena	17.45	16.01	Dickinson	14.14	10.14
Charlevoix	13.98	15.90	Lapeer	10.18	10.02
Mason	17.61	15.68	Barry	9.70	9.83
Gladwin	15.93	15.57	Livingston	9.90	9.77
Presque Isle	17.07	15.52	Kent	13.87	9.72
Baraga	16.31	15.31	Midland	11.13	9.68
Delta	18.45	14.82	Genesee	11.23	9.42
Oceana	16.29	14.75	Allegan	12.27	9.16
Mecosta	18.29	14.48	Branch	10.82	8.94
Chippewa	13.75	14.44	Clinton	8.98	8.85
Ionia	13.42	14.32	Kalamazoo	11.98	8.82
Antrim	13.99	14.11	Calhoun	11.73	8.76
Arenac	13.59	13.98	Cass	9.96	8.58
Osceola	14.13	13.97	Oakland	8.91	8.51
Iosco	14.03	13.97	Tuscola	11.33	8.45
Isabella	12.84	12.95	Leelanau	16.04	8.31
Manistee	17.01	12.65	Jackson	11.15	8.29
Van Buren	13.59	12.58	Wayne	9.30	8.20
Menominee	13.79	12.47	Washtenaw	11.68	8.02
Missaukee	14.10	12.45	Monroe	8.65	7.92
Newaygo	10.98	12.38	Ingham	9.44	7.66
Montcalm	18.64	12.28	Ottawa	13.46	6.99
Gogebic	17.5	12.28	Keweenaw	9.41	n.a.
Montmorency	15.40	12.12	Lake	11.97	n.a.
Huron	12.95	12.08	Michigan	10.84	9.52
			United States	10.77	10.39

SOURCE: Developed from U.S. Bureau of the Census, Census of Retail Trade, 1977, Geographic Area Series, Michigan, RC77-A-23 (Washington, D.C.: 1978), Table 7; U.S. Bureau of the Census, Census of Retail Trade, 1972, Area Statistics, Michigan, RC72-A-23 (Washington, D.C.: 1974), Table 6; and Bureau of Economic Analysis, Regional Economics Information System.
n.a.: not available.

TABLE XXVI-24. RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA SALES BY THE COMBINATION OF GASOLINE SERVICE STATIONS, EATING AND DRINKING PLACES, AND ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY: 1977

County	1972	1977	County	1972	1977
Mackinac	1,402	2,122	Ottawa	288	479
Iron	444	1,119	Van Buren	315	443
Roscommon	968	1,087	Ionia	270	437
Leelanau	538	1,084	Clinton	239	392
Wexford	534	984	Luce	335	390
Arenac	748	962	Hillsdale	271	369
Benzie	549	849	Presque Isle	n.a.	368
Missaukee	306	780	Cass	249	364
Oakland	395	762	Newaygo	317	360
Washtenaw	411	761	Oceana	294	334
Baraga	441	727	Barry	203	305
Calhoun	421	712	Alcona	476	n.a.
Eaton	349	711	Alger	580	n.a.
Gogebic	410	704	Allegan	347	n.a.
Delta	464	702	Antrim	679	n.a.
Dickinson	399	696	Berrien	454	n.a.
St. Clair	588	689	Branch	335	n.a.
Montmorency	510	687	Charlevoix	664	n.a.
Mason	435	682	Cheboygan	836	n.a.
Saginaw	377	681	Crawford	1,025	n.a.
Kalamazoo	385	669	Emmet	1,038	n.a.
Ingham	421	655	Genesee	370	n.a.
Kent	417	648	Grand Traverse	n.a.	n.a.
Lake	519	642	Gratiot	317	n.a.
Bay	350	633	Huron	364	n.a.
Manistee	456	629	Isabella	n.a.	n.a.
Alpena	398	622	Keweenaw	n.a.	n.a.
Oscoda	417	615	Lapeer	259	n.a.
Macomb	345	614	Lenawee	355	n.a.
Iosco	428	599	Livingston	349	n.a.
Mecosta	324	594	Marquette	324	n.a.
Houghton	326	592	Menominee	249	n.a.
Chippewa	406	585	Midland	360	n.a.
Wayne	357	583	Ogemaw	491	n.a.
Jackson	372	579	Ontonagon	387	n.a.
Clare	726	577	Osceola	288	n.a.
Sanilac	335	573	Otsego	1,006	n.a.
Kalkaska	576	544	Schoolcraft	353	n.a.
Montcalm	318	509	Shiawassee	254	n.a.
Monroe	299	499	St. Joseph	234	n.a.
Gladwin	293	486	Tuscola	245	n.a.
Muskegon	331	483	Michigan	373	627
			United States	399	639

SOURCE: Developed from Michigan Statistical Abstract, 1980, Tables XXVI-15, XXVI-17, and XXVI-19.
n.a.: not available.

TABLE XXVI-25. RANKING OF MICHIGAN COUNTIES ACCORDING TO SALES BY THE COMBINATION OF GASOLINE SERVICE STATIONS, EATING AND DRINKING PLACES, AND ESTABLISHMENTS CLASSIFIED IN THE LODGINGS INDUSTRY, AS A PERCENTAGE OF PERSONAL INCOME: 1977

County	1972	1977	County	1972	1977
Mackinac	42.48	40.51	Macomb	6.64	7.46
Roscommon	28.44	23.34	Monroe	6.79	7.29
Iron	13.94	21.14	Ottawa	6.49	7.21
Missaukee	10.10	17.76	Newaygo	8.79	7.20
Leelanau	13.77	17.55	Wayne	6.89	6.99
Arenac	22.52	17.14	Luce	10.29	6.77
Wexford	15.76	17.07	Oceana	9.00	6.69
Oscoda	15.23	15.40	Hillsdale	6.95	6.11
Benzie	14.35	15.32	Clinton	5.36	6.07
Lake	16.86	14.85	Cass	5.64	5.55
Mecosta	11.96	14.78	Barry	5.31	5.41
Baraga	12.03	14.31	Alcona	16.36	n.a.
Montmorency	15.53	14.01	Alger	19.27	n.a.
St. Clair	18.68	13.94	Allegan	9.41	n.a.
Gogebic	11.48	13.06	Antrim	19.69	n.a.
Delta	13.45	12.96	Berrien	9.77	n.a.
Mason	12.04	12.95	Branch	8.96	n.a.
Chippewa	12.44	12.36	Charlevoix	17.96	n.a.
Houghton	10.96	12.29	Cheboygan	24.91	n.a.
Clare	23.12	12.08	Crawford	32.78	n.a.
Iosco	11.99	11.73	Emmet	25.61	n.a.
Kalkaska	19.15	11.69	Genesee	7.65	n.a.
Manistee	13.01	11.16	Grand Traverse	n.a.	n.a.
Alpena	10.93	10.72	Gratiot	7.61	n.a.
Dickinson	10.18	10.62	Huron	9.63	n.a.
Gladwin	9.04	10.32	Isabella	n.a.	n.a.
Eaton	7.65	10.16	Keweenaw	n.a.	n.a.
Calhoun	8.83	9.56	Lapeer	6.24	n.a.
Washtenaw	8.19	9.46	Lenawee	8.06	n.a.
Kent	8.97	9.18	Livingston	8.04	n.a.
Bay	8.44	9.12	Marquette	8.90	n.a.
Montcalm	8.72	9.06	Menominee	7.74	n.a.
Saginaw	8.14	9.00	Midland	7.39	n.a.
Kalamazoo	8.38	8.96	Ogemaw	16.24	n.a.
Sanilac	8.13	8.90	Ontonagon	11.27	n.a.
Ingham	8.83	8.61	Osceola	9.39	n.a.
Jackson	8.06	8.42	Otsego	28.01	n.a.
Ionia	7.94	8.04	Schoolcraft	8.16	n.a.
Presque Isle	n.a.	7.83	Shiawassee	6.67	n.a.
Oakland	6.36	7.83	St. Joseph	5.39	n.a.
Muskegon	8.21	7.83	Tuscola	6.15	n.a.
Van Buren	8.30	7.58	Michigan	7.76	8.27
			United States	8.89	9.09

SOURCE: Developed from Michigan Statistical Abstract, 1980, Tables XXVI-15, XXVI-17, and XXVI-19.
n.a.: not available.

TABLE XXVI-26. STATE PARK USE AND TURNAWAY IN MICHIGAN: 1968-1979

Year	Number of day users[a]	Number of camper days[a]	Total attendance[a]	Number of camp permits	Camp turnaways	Day use turnaways[b]
1968	n.a.	n.a.	17,704	389,402	42,615	72,892
1969	n.a.	n.a.	18,956	409,140	75,527	57,289
1970	14,384	6,108	20,492	464,541	86,032	42,206
1971	15,419	6,495	21,914	491,807	84,258	52,465
1972	12,941	6,251	19,191	485,616	59,730	27,719
1973	13,606	6,248	19,849	496,812	57,445	25,378
1974	13,358	6,128	19,486	471,313	71,711	31,973
1975	14,768	5,598	20,366	462,123	70,962	46,708
1976	16,132	5,882	22,014	482,787	77,218	35,085
1977	n.a.	n.a.	22,344	480,133	79,107	40,154
1978	n.a.	n.a.	23,656	475,551	66,613	65,708
1979	n.a.	n.a.	21,426	422,371	51,128	38,227

SOURCE: Michigan Department of Natural Resources, special release.

a. Figures in thousands.

b. Number of vehicles.

n.a.: not available.

TABLE XXVI-27. STATE FOREST CAMPGROUND USE: 1968-1979

Year	Number of camps	Number of campers	Camper days	Number of day users
1968	45,000	175,569	691,816	173,525
1969	56,746	220,117	835,341	220,535
1970	68,623	268,164	995,974	329,934
1971	73,714	284,779	1,083,684	352,796
1972	70,899	268,099	996,409	356,170
1973	79,114	292,746	1,040,361	391,782
1974	77,716	288,243	1,070,023	391,782
1975	82,359	283,232	1,059,659	396,741
1976	88,024	304,784	1,122,527	529,000
1977	90,227	311,539	1,147,905	n.a.
1978	85,806	299,197	1,067,043	529,246
1979	75,143	248,167	748,090	380,530

SOURCE: Michigan Department of Natural Resources, special release.

n.a.: not available.

TABLE XXVI-28. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1977-1979

Name	Post office location	Acreage	Number of campsites	Attendance 1977	Attendance 1978	Attendance 1979
		Upper Peninsula				
Baraga	Baraga US-41	56	137	68,371	55,535	42,492
Bewabic	Crystal Falls US-2	200	144	57,426	60,975	49,383
Brimley	Brimley M-221	151	270	155,592	172,051	148,627
Craig Lake[a]	n.a.	5,864	n.a.	n.a.	n.a.	n.a.
Detour[a]	St. Ignace M-34	403	22	n.a.	n.a.	n.a.
Fayette	Fayette US-2	365	80	135,254	134,664	101,167
Fort Wilkins	Copper Harbor US-41	199	165	306,845	293,327	211,895
Indian Lake	Manistique M-149	567	300	135,977	131,588	104,108
Lake Gogebic	Marenisco M-64	361	165	69,458	85,250	71,228
McLain	Hancock M-203	401	90	169,280	195,427	152,966
Muskallonge Lake	Newberry M-123	217	179	79,016	71,004	54,332
Palms Book[a]	Manistique M-149	308	(b)	70,950	69,831	56,386
Porcupine Mtns	Ontonagon M-107	58,332	95	343,545	365,698	305,083
Straits	St. Ignace I-75	181	318	293,424	357,435	285,582
Tahquamenon Falls	Paradise M-123	35,733	319	597,692	600,634	495,541
Twin Lakes	Winona M-26	175	62	41,000	34,700	26,542
Van Riper	Champion US-41	1,044	226	113,160	105,682	80,865
J.W. Wells	Cedar River M-35	974	155	98,129	104,871	83,881
		Northern Lower Peninsula				
Aloha	Cheboygan M-212	91	287	214,300	211,839	109,302
Bay City	Bay City M-247	196	255	194,308	224,214	206,168
Burt Lake	Indian River I-75	405	360	197,733	218,160	174,232
Cheboygan	Cheboygan US-23	932	78	47,659	48,555	49,763

TABLE XXVI-28. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1977-1979 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1977	1978	1979
		Northern Lower Peninsula (cont.)				
Clear Lake	Atlanta M-33	290	200	93,142	91,907	74,061
Fisherman's Island	n.a.	2,608	41	n.a.	40,601	35,288
Gladwin	Gladwin M-18	381	45	47,686	56,035	51,339
Harrisville	Harrisville US-23	94	229	118,477	120,229	109,658
Hartwick Pines	Grayling M-93	9,239	46	250,216	248,291	200,252
Hoeft	Rogers City US-23	301	144	66,142	61,605	49,840
Interlochen	Interlochen M-137	187	550	337,183	345,218	290,185
Leelanau[a]	Glen Arbor Co. Rd. 201	1,087	42	131,814	146,021	149,501
Ludington	Ludington M-116	4,514	398	762,822	810,252	761,972
Mears	Pentwater US-31	50	179	359,331	375,024	348,554
Mitchell	Cadillac M-115	32	270	217,973	205,262	185,379
Newaygo	Newaygo M-37	257	99	36,623	39,650	40,049
North Higgins Lake	Roscommon M-18, M-76	429	204	166,553	195,650	188,033
Onaway	Onaway M-211	158	101	92,422	91,253	72,300
Orchard Beach	Manistee M-110	201	175	108,858	103,566	91,281
Otsego Lake	Gaylord I-75	62	203	209,698	211,868	204,188
Petoskey	Petoskey US-31	305	90	189,107	261,159	252,914
Rifle River	Lupton M-33	4,329	159	104,328	110,542	106,968
Silver Lake	Mears US-31	1,379	249	887,948	764,870	713,003
South Higgins Lake	Roscommon US-27	305	504	405,569	395,792	299,050
Sturgeon Point[a]	n.a.	70	n.a.	n.a.	n.a.	n.a.
Tawas Point	E. Tawas US-23	175	202	240,618	262,029	256,293
Traverse City	Traverse City US-31	39	330	302,044	362,086	257,224
White Cloud	White Cloud M-20	89	89	88,152	72,574	55,122
Wilderness	Carp Lake US-31	7,514	210	165,147	159,057	154,644

TABLE XXVI-28. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1977-1979 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1977	1978	1979
		Northern Lower Peninsula (cont.)				
Wilson	Harrison I-75	36	160	128,295	137,261	102,852
Young	Boyne City M-75	563	293	152,432	157,170	151,849
		Southern Lower Peninsula				
Algonac	Algonac M-29	1,024	281	270,234	268,839	271,151
Bald Mountain	Lake Orion M-24	3,118	25	468,312	489,959	515,310
Brighton	Howell I-96	4,88[illegible]	222	272,460	277,103	261,388
Cambridge	Brooklyn US-12	183	(c)	n.a.	n.a.	n.a.
Dodge #4	Pontiac M-59	136	(b)	475,832	462,220	484,708
Duck Lake[a]	n.a.	610	n.a.	49,835	52,482	68,309
Fort Custer	Augusta I-94	2,962	(b)	97,794	66,146	106,195
Grand Haven	Grand Haven US-31	48	170	756,368	761,250	597,383
Grand Mere[a]	n.a.	393	n.a.	n.a.	n.a.	n.a.
W. J. Hayes	Onsted US-12	654	210	601,070	732,041	491,911
Highland	Milford M-59	5,504	25	333,316	336,888	335,521
Hoffmaster	Muskegon US-31	1,043	333	303,550	376,625	386,663
Holland	Holland US-31	143	342	1,358,617	1,695,926	1,346,517
Holly	Holly I-75	7,446	79	554,984	665,835	652,473
Ionia	Saranac M-66	3,998	25	60,720	52,092	70,188
Island Lake	Brighton I-96	3,466	25	292,378	315,901	426,606
Lake Hudson	n.a.	2,650	n.a.	n.a.	n.a.	4,724
Lakeport	Port Huron US-23	566	256	285,004	317,349	244,771
Maybury	Northville	944	0	96,104	125,591	123,143
Metamora-Hadley	Metamora M-24	682	211	309,420	214,212	241,060
Muskegon	North Muskegon M-213	1,125	348	446,938	486,770	434,361
Ortonville	Ortonville M-75	4,205	70	291,296	227,721	164,400

TABLE XXVI-28. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1977-1979 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1977	1978	1979
		Southern Lower Peninsula (cont.)				
Pinckney	Pinckney M-36	9,930	270	564,077	478,146	423,852
Pontiac Lake	Pontiac M-59	3,664	25	386,548	382,342	405,175
Port Crescent	Port Austin M-25	655	181	128,693	139,008	126,593
Proud Lake	Milford I-96	3,525	150	391,470	424,782	355,279
Rochester-Utica	Utica M-59	1,242	(b)	465,099	500,146	484,397
Sanilac[a]	Port Austin US-25	112	19	12,854	16,158	12,965
Saugatuck	n.a.	509	n.a.	n.a.	n.a.	11,714
Seven Lakes	Fenton US-23, I-75	1,379	(c)	75,658	159,172	172,929
Sleeper	Caseville M-25	1,003	270	183,415	185,891	193,758
Sleepy Hollow	Lansing US-27	2,678	(c)	199,342	204,828	185,076
Sterling	Monroe I-75	997	192	518,975	760,946	801,697
Van Buren	South Haven I-196	326	197	238,224	272,781	346,734
Warren Dunes	Sawyer I-94	1,502	249	1,256,654	1,322,651	1,258,758
Waterloo	Chelsea I-94	17,868	434	933,778	887,613	728,598
Yankee Springs	Middleville M-37	5,001	345	613,089	630,364	599,219

SOURCE: Michigan Department of Natural Resources, special release, and Michigan Tourist Council, special release.

a. Craig Lake administered by Van Piper; Detour by Straits; Palms Book by Indian Lake; Leelanau by Traverse City; Sturgeon Point by Harrisville; Duck Lake by Muskegon; Grand Mere by Warren Dunes; and Sanilac by Port Crescent.

b. No camping permitted.

c. Under development.

n.a.: not available.

TABLE XXVI-29. LOCATION, ACREAGE, NUMBER OF CAMPSITES AND CAMPGROUNDS, AND CAMPER DAYS OF MICHIGAN STATE FORESTS: 1976-1978

Forest	Location of forestry field office	Acreage	Number of campsites	Number of campgrounds	Camper days 1976	1977	1978
			Upper Peninsula				
Mishwabic	Twin Lakes	61,174	9	1	2,978	2,416	2,554
Baraga	Baraga	67,628	51	5	11,372	12,821	9,906
Iron Range	Crystal Falls	78,400	53	3	7,083	7,168	8,500
Ford River	Felch	153,470	36	5	9,102	9,979	8,843
Sturgeon River	Norway	64,649	10	1	2,227	3,083	1,962
Michigamme	Negaunee	115,700	17	3	7,779	8,442	9,945
Escanaba River	Gwinn	143,460	82	6	22,271	23,928	20,334
Menominee	Stephenson	90,070	13	2	3,576	3,403	3,708
Bay de Noc	Escanaba	81,325	62	4	19,583	20,556	16,563
Manistique R.	Manistique	142,280	26	3	6,374	7,678	5,286
Grand Sable	Shingleton	200,721	87	9	28,926	28,459	29,773
Lake Superior	Newberry	176,500	276	17	95,828	99,904	94,055
Tahquamenon R.	Newberry	187,274	57	4	7,135	10,100	10,534
Mackinac	Naubinway	183,885	199	8	66,558	60,694	71,132
Munuscong	Sault Ste. Marie	120,980	66	3	24,271	21,980	22,898
TOTAL					315,063	320,611	315,993
			Northern Lower Peninsula				
Hardwood	Indian River	158,000	54	2	23,291	22,078	23,897
Black Lake	Onaway	123,176	137	5	42,788	51,296	53,390
Jordan River	Boyne City	86,418	77	3	30,992	27,485	10,398
Otsego	Gaylord	55,830	83	3	25,241	23,810	32,282
Thunder Bay	Atlanta	132,118	117	6	45,710	45,609	37,546

TABLE XXVI-29. LOCATION, ACREAGE, NUMBER OF CAMPSITES AND CAMPGROUNDS, AND CAMPER DAYS OF MICHIGAN STATE FORESTS: 1976-1978 (cont.)

Forest	Location of forestry field office	Acreage	Number of campsites	Number of campgrounds	Camper days 1976	Camper days 1977	Camper days 1978
		Northern Lower Peninsula (cont.)					
Pigeon River C.	Blue Lakes Rd.	82,785	94	7	39,974	54,928	39,336
Alpena	Alpena	51,654	60	2	18,810	19,148	19,316
Betsie River	Beulah	86,494	151	7	58,134	60,199	53,988
Fife Lake	Traverse City	103,222	220	11	74,939	85,996	65,765
Pere Marquette	Baldwin	60,734	60	6	24,020	24,716	21,847
AuSable	Grayling	152,785	240	15	104,698	100,979	103,263
Houghton Lake	Houghton Lake Hgts	188,802	105	5	41,839	30,763	28,127
Oscoda	Mio	77,959	136	6	52,195	48,252	46,594
Ogemaw	West Branch	80,550	70	2	8,961	11,363	11,177
Kalkaska	Kalkaska	138,553	77	4	41,242	53,311	51,918
Missaukee	Houghton Lake Hgts	93,207	127	5	58,568	53,093	55,100
Chippewa R.	Paris	72,622	88	6	58,130	57,586	53,969
Tittabawassee R.	Gladwin	153,000	127	5	57,932	56,682	46,073
TOTAL					807,464	827,294	753,986
GRAND TOTAL					1,122,527	1,147,905	1,067,043
Camping figures based on registrations plus estimates of noncampers					1,651,527	n.a.	n.a.

SOURCE: Michigan Department of Natural Resources, special release.

n.a.: not available.

TABLE XXVI-30. VISITOR DAYS OF USE OF NATIONAL FORESTS LOCATED IN MICHIGAN AND THE UNITED STATES: 1967-1979

(In millions of visitor days)

Year	Michigan				United States total
	Huron-Manistee	Hiawatha	Ottawa	Total	
1967	1,298.1	1,063.3	679.6	3,041.0	149,647.1
1968	1,538.8	1,352.9	777.6	3,669.3	156,655.3
1969	1,657.2	1,619.8	868.1	4,145.1	162,838.1
1970	1,664.0	1,587.6	991.2	4,242.8	172,554.5
1971	1,770.8	1,739.8	1,064.0	4,574.6	178,109.5
1972	1,901.3	1,704.1	1,117.0	4,722.4	183,958.3
1973	1,842.1	1,854.9	1,187.8	4,884.8	188,174.6
1974	1,955.6	1,821.9	1,240.5	5,018.0	192,915.8
1975	1,940.0	2,002.7	1,208.4	5,151.1	199,200.8
1976	2,154.8	2,030.3	1,289.6	5,474.7	199,928.1
1977	2,378.0	1,833.6	1,334.1	5,545.7	204,797.4
1978	2,390.2	1,749.2	1,363.4	5,502.8	218,496.3
1979	2,183.8	1,571.6	1,260.3	5,015.7	236,301.7

SOURCE: U.S. Forest Service, special release.

TABLE XXVI-31. VISITORS TO ISLE ROYALE NATIONAL PARK AND TO PICTURED ROCKS AND SLEEPING BEAR DUNES NATIONAL LAKESHORES: 1967-1979

Year	Isle Royale	Pictured Rocks[a]	Sleeping Bear Dunes[b]
1967	9,529	--	--
1968	10,065	--	--
1969	10,403	--	--
1970	14,411	--	--
1971	15,868	--	--
1972	16,116	287,094[c]	--
1973	15,439	296,537	--
1974	13,934	298,856	--
1975	16,818	279,262	775,000
1976	16,000	317,000	800,000
1977	16,676	297,189	837,976
1978	16,415	289,902	759,000
1979	14,810	272,416	733,463

SOURCE: Isle Royale National Park, Pictured Rocks National Lakeshore, and Sleeping Bear Dunes National Lakeshore, special releases.

a. Records not available prior to 1972.

b. Records not available prior to 1975.

c. Eleven-month total, beginning with February.

TABLE XXVI-32. NUMBER OF RESIDENT AND NONRESIDENT HUNTING LICENSES ISSUED IN MICHIGAN: 1963-1978

Year	Small game		Deer-firearm		Deer-bow	
	Resident[a]	Nonresident	Resident[a]	Nonresident	Resident[a]	Nonresident
1963	612,561	4,282	506,578	9,142	37,258	3,508
1964	630,692	4,258	552,008	11,591	41,759	3,735
1965	627,615	4,631	592,660	12,833	47,975	4,185
1966	637,927	4,735	561,401	12,911	47,992	4,200
1967	603,916	5,157	577,999	11,249	54,315	3,759
1968	575,013	5,047	609,120	14,360	59,039	4,061
1969	569,696	5,687	641,863	14,990	61,342	4,043
1970	581,855	6,202	616,173	12,729	58,234	3,584
1971	465,201	5,683	492,024	10,189	35,514	2,985
1972	445,589	6,396	455,304	9,108	30,400	2,576
1973	515,101	7,803	494,567	10,169	38,287	2,735
1974	564,476	8,609	551,928	11,820	46,269	2,851
1975	558,520	8,866	587,091	13,710	54,391	3,582
1976	503,165	7,601	535,550	13,781	57,184	4,287
1977	436,091	7,847	507,146	14,990	62,401	5,464
1978	366,040	7,059	549,057	16,388	--	6,793

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes senior resident.

TABLE XXVI-33. NUMBER OF RESIDENT AND NONRESIDENT FISHING LICENSES ISSUED IN MICHIGAN: 1963-1978

Year	Resident		Nonresident		Trout stamp[b]		
	Senior	Annual[a]	7-day	Annual	One day	Three day	Total
1963	n.a.	711,331	81,201	105,216	n.a.	n.a.	180,160
1964	n.a.	705,209	73,924	108,023	n.a.	n.a.	188,381
1965	n.a.	723,189	73,188	111,876	n.a.	n.a.	197,733
1966	81,738	661,706	70,332	113,321	n.a.	n.a.	209,114
1967	72,679	708,457	72,624	119,677	n.a.	n.a.	230,546
1968	85,998	801,214	51,778	126,458	12,488	n.a.	294,000
1969	92,301	806,532	46,273	128,614	11,943	n.a.	292,523
1970	92,932	807,703	50,121	133,196	14,916	n.a.	303,774
1971	97,169	837,462	53,164	137,460	17,470	n.a.	312,432
1972	99,540	811,393	34,977	127,218	12,586	40,273	308,630
1973	103,805	832,539	35,175	131,671	14,963	56,144	311,565
1974	91,938	871,557	33,832	131,516	15,267	64,183	324,865
1975	95,206	916,571	36,907	137,919	17,851	71,421	352,207
1976	95,331	817,088	--	106,028	--	188,381[c] --	278,130
1977	94,659	770,299	--	99,971	--	216,593 --	253,235
1978	95,469	738,324	--	94,089	--	242,538 --	239,601

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes 7-day licenses issued during 1968-1977.
b. Resident and nonresident.
c. Daily
n.a.: not applicable.

TABLE XXVI-34. REGISTRATION OF WATERCRAFT, SNOWMOBILES, AND OFF-ROAD VEHICLES IN MICHIGAN, BY COUNTY, FISCAL YEAR ENDING 30 SEPTEMBER: 1978 AND 1979

	Type of vehicle					
	Watercraft		Snowmobile		Off road	
County	1978	1979	1978	1979	1978	1979
Alcona	1,572	1,796	1,567	1,628	199	88
Alger	1,325	1,541	1,862	1,957	154	56
Allegan	6,521	7,604	4,641	5,041	614	316
Alpena	4,284	4,815	4,075	4,296	182	60
Antrim	3,377	3,891	2,102	2,200	128	66
Arenac	2,191	2,754	1,832	1,967	106	68
Baraga	820	934	877	936	13	1
Barry	5,668	6,709	3,734	4,031	428	182
Bay	9,296	10,392	9,364	9,978	1,792	869
Benzie	2,273	2,795	1,411	1,535	74	25
Berrien	13,011	14,338	4,444	4,859	750	245
Branch	6,273	7,111	2,660	2,935	249	98
Calhoun	10,503	11,699	4,334	4,849	922	386
Cass	8,134	9,369	2,862	3,324	426	153
Charlevoix	2,822	3,271	2,502	2,695	231	94
Cheboygan	3,579	4,189	3,604	3,783	126	47
Chippewa	4,640	5,100	5,834	6,106	154	75
Clare	2,526	3,097	3,093	3,209	233	120
Clinton	4,111	4,734	5,197	5,568	671	321
Crawford	2,134	2,397	1,565	1,693	346	172
Delta	3,627	4,100	5,604	5,799	346	151
Dickinson	2,384	2,735	3,009	3,155	164	81
Eaton	5,697	6,685	5,625	6,056	1,049	474
Emmet	3,142	3,600	2,507	2,668	291	104
Genesee	29,351	32,686	26,226	27,758	4,672	2,227
Gladwin	2,264	2,767	2,263	2,434	283	171
Gogebic	2,339	2,639	2,170	2,280	19	17
Gr. Traverse	7,297	8,443	5,410	5,613	440	192
Gratiot	2,697	2,971	3,793	3,985	587	178
Hillsdale	3,402	3,929	2,598	2,838	175	92
Houghton	2,658	2,968	2,390	2,557	52	13
Huron	2,580	2,963	4,243	4,481	209	106
Ingham	15,194	16,757	8,758	9,216	2,068	908
Ionia	3,588	4,090	4,100	4,304	386	193
Iosco	4,002	4,693	2,776	2,877	373	159
Iron	2,193	2,534	1,714	1,806	122	30
Isabella	2,637	3,134	3,064	3,240	316	147
Jackson	12,129	13,724	6,592	7,053	1,096	432
Kalamazoo	16,168	18,014	5,701	6,092	1,784	626
Kalkaska	1,253	1,603	1,576	1,675	165	71
Kent	31,783	35,640	17,610	18,922	4,245	1,853
Keweenaw	292	312	196	217	5	--

TABLE XXVI-34. REGISTRATION OF WATERCRAFT, SNOWMOBILES, AND OFF-ROAD VEHICLES IN MICHIGAN, BY COUNTY, FISCAL YEAR ENDING 30 SEPTEMBER: 1978 AND 1979 (cont.)

	Type of vehicle					
	Watercraft		Snowmobile		Off road	
County	1978	1979	1978	1979	1978	1979
Lake	1,283	1,577	954	1,009	125	43
Lapeer	3,310	4,098	6,425	6,901	709	343
Leelanau	2,942	3,340	1,686	1,798	51	14
Lenawee	6,442	7,459	5,058	5,867	628	189
Livingston	7,088	8,921	5,395	6,221	774	354
Luce	1,192	1,364	1,308	1,375	86	43
Mackinac	2,780	3,218	2,319	2,495	148	63
Macomb	33,874	38,267	18,797	20,669	4,914	2,057
Manistee	2,668	3,016	1,920	2,009	218	77
Marquette	5,267	6,176	6,386	6,840	637	361
Mason	3,407	3,779	2,463	2,596	156	71
Mecosta	3,158	3,521	2,761	2,984	148	66
Menominee	2,010	2,358	3,128	3,282	86	51
Midland	6,550	7,435	4,893	5,053	1,065	589
Missaukee	1,173	1,369	1,479	1,565	40	21
Monroe	7,922	9,574	5,450	6,619	1,253	499
Montcalm	4,256	4,905	4,769	4,983	365	154
Montmorency	1,490	1,675	1,324	1,393	81	61
Muskegon	12,349	13,643	9,244	9,635	1,727	844
Newaygo	3,598	4,165	3,488	3,696	388	234
Oakland	53,412	61,671	33,410	36,515	7,191	3,249
Oceana	1,674	1,926	2,446	2,565	237	110
Ogemaw	1,990	2,368	2,523	2,629	151	88
Ontonagon	1,150	1,306	1,897	2,045	145	60
Osceola	1,457	1,725	2,324	2,512	136	69
Oscoda	1,185	1,456	1,038	1,093	101	38
Otsego	1,700	1,979	2,215	2,327	240	89
Ottawa	12,310	14,128	8,087	8,756	1,595	714
Presque Isle	1,935	2,284	2,086	2,235	55	40
Roscommon	4,363	4,991	3,639	3,881	278	155
Saginaw	15,260	16,770	14,533	15,322	2,337	1,113
St. Clair	9,242	10,797	7,915	8,599	570	267
St. Joseph	6,782	7,813	1,961	2,170	374	129
Sanilac	1,408	1,591	4,189	4,400	135	67
Schoolcraft	1,606	1,844	1,784	1,899	237	135
Shiawassee	4,187	4,800	6,151	6,586	1,011	468
Tuscola	3,276	3,804	6,662	7,005	592	283
Van Buren	6,138	7,054	2,659	2,942	346	119
Washtenaw	12,711	14,704	6,869	7,69[illegible]	1,312	576
Wayne	81,195	88,457	24,363	27,0[illegible]	8,449	3,878
Wexford	3,802	4,182	2,849	3,013	210	81
Non-resident	23,790	28,363	5,881	5,918	1,833	669
Total	615,069	699,396	420,418	451,719	67,779	30,238

SOURCE: Michigan Department of State, special release.

XXVII. PROJECTIONS

In addition to being the nation's premier producer of cars, trucks, and buses, Michigan leads in the production of components. Most of this state's foundries, stamping plants, plastics plants, engine plants, and various other durable goods factories are linked directly to the automotive industry as suppliers. During 1978, the recent peak year in automotive production, there were approximately 750,000 people employed in the production of cars and parts in the Wolverine State. That figure represented about 20 percent of jobs located here. Approximately 500,000 of those jobs were in factories and offices of the Big Three car makers.

Michigan's current slump has its roots in Chrysler's problems. Chrysler missed the strong market for big cars in fall 1978 and the opening months of 1979 due to production difficulties at its Lynch Road assembly plant, source of its newly designed large Dodges and Chryslers. It is difficult now to recall that less than eighteen months ago the market for large cars sizzled, while small car inventories accumulated for want of demand. Ford and GM sales began to slide when gasoline lines formed in California last spring. Their sales are even more depressed now by the general economic recession that began in January 1980.

Arenac County was most affected. That small economy was devastated by the closure of a Riverside Products plant that made wire harnesses for cars. Montmorency County also lost a major employer when Essex International closed its wire harness plant in Atlanta. Oscoda County, which also has a small economic base, has experienced layoffs in a few factories that supply the automotive industry. It does not take much of a numerical job loss to send these counties into an economic tailspin. Hillsdale and Branch counties are heavily dependent on the automotive industry. Wexford, Ogemaw, and Clare counties also have been heavily affected by such layoffs, even though they are not as automotive dependent.

None of the state's metropolitan areas has been spared the strain of sagging demand for North American makes of cars and trucks. The Flint area has been most heavily affected. It has a Chevy light truck plant, Buick facilities that make intermediate and large cars, and other GM plants. Almost 40 percent of those employed in this two-county area work for General Motors. Saginaw, with more than 25 percent of its work force in Saginaw Steering Gear and other GM plants, was second most affected among the metropolitan areas. The Detroit area, where Chrysler is the largest employer, was third. Since October 1978, Chrysler has pared about 40,000 from its Michigan work force. Ford also is heavily committed in southeast Michigan, although not so much in the inner cities as Chrysler. Alone among the major areas, Kalamazoo posted an overall gain, despite skidding automotive employment.

A few counties show exceptional economic gains from year to year in the face of the vast dislocation in the rest of the state. Most of these are located in the Upper Peninsula, which is starting to emerge from a prolonged period of sluggishness. Mackinac and Gogebic counties have experienced strong growth in services and retail trade. Iron County hosts a wire harness plant that supplies American Motors Corporation. Ontonagon County is benefiting from a revival in the market for copper. In the northern lower peninsula, Cheboygan County is growing well despite sagging durable goods manufacturing. Growth in retail trade and services has been strong. The same is true of Roscommon County. Osceola County, like Iron, benefits this year from hosting an American Motors Corporation components plant.

In the near term, the Michigan economy will be shaped by what happens to the car and truck market. This summer Chrysler Corporation began producing its new K-car, a front wheel drive vehicle that replaced the Aspen and Volare models. Trenton Engine makes the powerplant for the K-cars. The Jefferson Avenue plant in Detroit, along with the Newark, Delaware, plant assembles these new mid-size cars. Chrysler continues to assemble light trucks at its plant in Warren, Michigan, and at a somewhat faster clip than a short while ago, inasmuch as the Missouri truck plant near St. Louis has been closed and Jefferson Avenue converted. Chrysler continues to manufacture V-8 engines at its Mound Road plant. Even so, in October 1980, there will likely be fewer Chrysler people working in Michigan than there were in March. Employment is reduced at Chrysler suppliers, too. Chrysler is least vertically integrated of the Big Three, which means that for every Chrysler layoff, there is at least one layoff at a supplier; the figure is about 1.5 on the average, compared with about one for Ford and less than half for GM. Another factor in the Detroit equation is the termination of tire production at Uniroyal, closing of the Dana frame plant in Ecorse, closing of the Wyandotte Chemical plant, and so forth. Those jobs are gone for the foreseeable future.

Ford's new small cars, the Ford Escort and Mercury Lynx, are assembled in Wayne, Michigan, and Metuchen, New Jersey, another plus for Michigan.

In spring 1981, General Motors is planning to introduce its replacement for the sporty Monza. The new J-car will likely be assembled in Lordstown, Ohio, since that is where Monza production takes place. This means jobs at several Michigan plants. More important for Michigan, perhaps, is the expansion of the Hydramatic Division. Components plants will open in Three Rivers and Constantine, Michigan, this summer. A Chevrolet parts plant on Mound Road in Detroit also is being converted to hydramatic parts production.

There is definitely a demand for cars to replace the gas guzzlers that were churned out during the late 1960s and early 1970s, when America did not have the capacity to produce small cars in large volumes. With Chrysler virtually out of the large car market, Ford and GM will benefit if it revives. Revival depends on interest rates and consumer outlook more than physical need, since the American family car has always been capable of providing transportation another year when called upon to do so. With interest rates plunging, and the expectation of a tax cut for households, chances are good for such a revival, although a turnaround such as 1975-1976 does not appear to be in the cards.

Everything considered, Michigan's economy should be much improved by winter 1980, although still operating below levels of a year ago. Expect Detroit, Muskegon, Jackson, and Benton Harbor, along with Montmorency and Arenac counties, to remain depressed. The Kalamazoo, Grand Rapids, and Traverse City areas should be back on rapid growth trajectories. The Lansing, Ann Arbor, and Midland areas and the Upper Peninsula should show job gains at rates somewhat below those for these three areas. Bay City, Saginaw, Flint, Hillsdale, Cadillac, and Cassopolis should show improvement, but not complete recovery to previous employment peaks.

To understand the longer term, one must first consider the condition of our capital stock. In the nation and even more so in the state, it was allowed to decay even before 1974. Since then, the capital base has been a victim of high interest rates, which translate into high replacement cost and high energy prices, which mean high operating cost. As a result, we have tended to

substitute relatively inexpensive and plentiful labor for capital and energy. That is what has been happening from the private producers' point of view. From the private household perspective, massive amounts of income have been diverted to pay for higher priced energy. To maintain real incomes, increasing numbers have joined the labor force. The result has been higher prices, lower productivity, and, consequently, lower real incomes. High interest rates and the declining dollar value on money exchanges are just intermediate effects of all this.

Federal fiscal deficits have exacerbated the strains caused by high cost energy by diverting some of the income flow from investment. The more serious effect has been to shift the burden of short-term inflation fighting to monetary policy. The nation now seems to be in a fiscally conservative mood. I anticipate a massive shift in our priorities to favor investment at the expense of consumption.

Oil prices will continue to rise until 1985 because of decontrol in this country, if for no other reason. The world price of oil should rise at a more modest rate than America's internal rate because that scenario best suits countries with large reserves.

General Motors, Ford, and Chrysler are designing lighter cars. Not only will they produce small cars to match the demand from the burgeoning number of single and two-person households, but also large family cars and vans will have small dimensions.

Some of the implications are obvious. The demand for cast iron components and for other heavy materials, such as die cast, will shrink. Michigan's many gray iron foundries and die casters face perilous times unless they switch to plastics and aluminum. We might even see engine blocks stamped from steel. Smaller engines require fewer valves and piston rings. Electronically controlled fuel injection requires no carburetor. Spare wheels will be outmoded by space constraints as well as by advances such as the run flat tire, which can get you to the nearest service station. Small cars will become more crashworthy, by government mandate if for no other reason. To offset the implied weight gain, they will become more aerodynamic.

Michigan is the nation's leader in privately sponsored research and development, largely because of its automotive laboratories. That lead should increase between now and 1985.

Because we lead the nation in automotive assembly and parts production, we have the infrastructure and plentiful supply of the associated skills. These advantages, coupled with a generous tax rebate program, a business tax that favors investment, and ambitious industrial recruitment efforts in Lansing and in many locales in the state, have already produced a major investment boom. There is more on the horizon. GM, besides expanding its Hydramatic Division in this state as mentioned above, is adding to its diesel enging capacity. An engine plant is being constructed near Lansing and a parts plant near Coopersville. GM will build a new assembly plant near Pontiac to replace its Pontiac car plant. It plans to convert an unused assembly line at Pontiac Truck and Coach for the production of small trucks. Soon it will begin producing medium-sized diesel-engine trucks in Pontiac to compete with foreign makes in that weight class. GM is also conducting research on an electric car. Both GM and Ford have gas turbine research programs that should bear fruit.

Volkswagen of America will move into a plant in Sterling Heights. This expansion will mean new opportunities for suppliers in the Detroit area. It is

not inconceivable that VW will acquire other Detroit area properties to increase its engine capacity and to make stampings, among other things.

Developments in Michigan's automotive sector will translate into jobs--in the laboratories and on test tracks, in the construction trades to build and remodel factories, and in tool and die and other capital goods industries to equip them. They also translate into future jobs, to manufacture cars and trucks more efficiently and more in keeping with demand than presently.

With the major companies searching for means to standardize components so as to achieve economies of scale in manufacturing, we can expect small styling and customizing shops to flourish.

For certain kinds of operations in the automotive industry, Michigan will remain at a disadvantage. These are the low skill and low wage jobs associated with mufflers, tail pipes, and shock absorbers. Much of this segment has already moved to southern states where labor is cheap.

Michigan also has a stake in the future of large home appliances. The state is the headquarters of Whirlpool Corporation, which manufacturers Kenmore products for Sears in addition to its own. White Consolidated has major plants in Grand Rapids, Greenville, and Belding. Fedders has a plant in Greenville. Several appliance components suppliers also are located in this state. High level residential construction activity and new household formation during the 1980s auger well for all of these plants. Greenville was a beneficiary of GM's recent decision to abandon the appliance business. White Consolidated, which bought the Frigidaire Division, transferred some of the machinery to the Gibson plant in Greenville.

For the nation as a whole, demographics clearly indicate that the labor force will become older as the number of new entrants dwindles. This is a consequence of declining birth rates in years past. We have already seen the effects in declining enrollments in schools and colleges. A recent article in the Occupation Outlook Quarterly said this about the demand for higher education:

> During the 1960s, professional and technical occupations were the fastest growing among all occupational groups because of rapid expansion in education and the high technology industries, which employed a great many teachers, engineers, and other highly skilled workers. During the 1970-78 period, however, the growth rate for these occupations declined. Over the 1978-90 period, the growth in employment of professional and technical workers is expected to be even slower than it was during the 1970-78 period, because of the lack of growth in education and a slower growth in high technology industries. In fact, employment in most other occupations--sales, clerical, service, craft, and managerial--is expected to grow faster than employment in professional occupations.

Higher education's success in countering these trends depends on its ability to attract women, minorities, and adults who generally are not the traditional college-goers. Almost every forecaster expects enrollment to decline at Michigan higher educational institutions, although the shrinkage will vary among colleges. The competition for students will be especially intense in

southeastern Michigan among Wayne State, Oakland University, Eastern, and the University of Michigan. Ferris State, Michigan Tech, and Northern Michigan should be relatively insulated because of their location as well as because of their specialties.

It is not inconceivable that one, two, or all three of Michigan's major universities will fall heir to a state research park. Perhaps more than in any other state, our universities tend to be institutions with a single purpose, namely, education, with a modicum of effort going into research that benefits industry. Michigan parents value our colleges as places where their children can earn credentials to qualify for high paying jobs in the Southwest and on the West Coast. The Wolverine State is a leading supplier to the rest of the nation of highly skilled human capital. Research parks might be developed to serve the automotive industry and at the same time create jobs for our college graduates. While the number of school aged youth is declining, the number of retired persons is rising. Moreover, the population ranks of the elderly are becoming more and more swollen by the very old, those who are least able to provide for themselves and thus constitute the greatest burden on the taxpayer. This trend will continue until the baby boom of the 1940s starts to retire. Between now and the turn of the century, the supply of nursing care facilities in the United States will double, and there will be a rising surplus of acute care hospital beds and of physicians.

There is growing recognition of the need for phased retirement or part-time employment opportunities for the retired. It is not altogether unrealistic to expect government to offer incentives toward that end. Possibly, they could be linked to programs for employing and training young people in families receiving public welfare. We will start thinking of senior citizens as a resource, not a burden.

What are the implications for these changes on Michigan's economy in the decade ahead? They are spelled out in some detail in Table XXVII-4. The bottom line is a job growth of 8.5 percent over the 1978 level by 1985, somewhat less than half the national growth rate in number of jobs.

Tourism is expected to provide a major impetus to this state between now and 1985, with lodgings employment gaining by almost one-third. Employment in eating and drinking places is forecast to jump by 40 percent, as this industry serves the city-bound leisure crowd as well as tourists and other travelers. Retail trade, banking, and amusements also will feel the effects of rapidly rising discretionary income in single and two-person households. Some segments of health and medical care will grow as a result of the aging population, as indicated above. Business and legal services also are slated for high growth.

Durable goods manufacturing is expected to grow, although slowly, between 1978 and 1985, and then level off. By then, the present wave of automotive investment will have spent itself, implying a declining market for machine tools, among other things, between 1985 and 1990. Rail and water transportation and local transit are declining industries in this state. Employment in air transportation and in trucking and warehousing will not increase, although output will, because of productivity gains. Farm employment will continue to decline. Here, too, however, output will increase as a result of advancing productivity.

A decline in government employment seems inevitable if for no other reason than that those totals include school teachers and faculty and staff in state-owned institutions of higher education. The government totals also are inflated by including most CETA workers. Much of this government job-creation machinery is certain to be dismantled after the recovery from the current recession, particularly since the ranks of untrained youth in the labor force are expected to dwindle between now and 1985.

Given this scenario, Michigan can expect to continue to be a labor exporter during the next decade. Our unemployment rate will likely remain above the national average. Welfare rolls will remain uncomfortably high in this state, although below current records.

Much of the reason for expecting a continued economic malaise, although at a lower level, is the condition of labor markets in the inner cities of southeastern Michigan. Detroit is in transition from heavy industry to services, broadly defined. Hamtramck, Highland Park, and several other cities are also in transition--from heavy industry with no offsetting gains in other sectors. The problem for them is that workers who become unemployed from declining heavy industry cannot easily transfer to the growing office and services sectors in the suburbs. The Muskegon, Jackson, and Benton Harbor areas have much the same problem.

Macomb County will expand its manufacturing base and Oakland County its service-office base. Growth in Oakland will be affected by increased competition from Detroit for stores and offices. The very rapid growth experienced in Livingston County should also slacken as a result of slowing in the exodus from Wayne County's inner cities as well as lack of sewerage treatment facilities in Livingston. Washtenaw County is expected to grow rapidly because of its attraction for high technology companies. In western Michigan, Kent and Ottawa counties have ambitious development programs in a wide range of manufacturing and service industries. They will continue to reap dividends from these efforts. Much the same is true for Kalamazoo and Traverse City.

The Upper Peninsula should be expansive owing to its forest-based industries. After recovery from the current recession, mining is expected to be a stable sector there. The northern lower peninsula should continue to attract retirees as well as to provide amenities for vacationers from southern Michigan, Ohio, and Illinois. Charlevoix, Emmet, and Antrim counties are especially well situated for the tourist dollar, as is Mackinac County, farther north. Mecosta County will benefit from hosting Ferris State College, which specializes in several technical areas, including diesel engine maintenance. Manistee, Mason, and Wexford counties could be affected by sluggish manufacturing. Otsego County should continue its vigorous growth; Crawford should recover from the loss of Bear Archery due to a new Weyerhauser plant. Roscommon and Alcona counties seem destined for continued growth in retailing and services; the other counties in the northeastern quadrant do not appear to have a rapid growth basis.

Midland and its environs will exhibit new growth after the Consumers Power plant is completed.

Along the southern tier, St. Joseph, Lenawee, and Monroe counties have good growth potential in their manufacturing bases. Berrier, Cass, Branch, and Hillsdale are likely to grow slowly.

The above industry employment projections are detailed in Table XXVII-4, which was prepared by the Bureau of Business and Economic Research, Graduate

School of Business Administration, Michigan State University. These projections were developed on the basis of extrapolating Michigan shares of U.S. employment from the 1967-1968 to 1977-1978 trend for the industries shown and then adjusting for jobs permanently lost in the automotive sector and the spinoff effects on other industries. The U.S. job projections to which Michigan 1985 and 1990 shares were applied were developed by the Bureau of Labor Statistics. The Michigan and U.S. job data for 1967, 1968, 1977, and 1978 were prepared by the Bureau of Economic Analysis.

If anything, the Michigan projections have a downward bias because of the business-as-usual assumption which seems unlikely to hold. The greater probability is that the state will develop new means to increase employment growth so as to cut the high level of unemployment implied by those projections. Yet, Michigan could develop programs to export its excess labor to states such as Texas, Oklahoma, Arizona, Wyoming, Montana, and the Dakotas, where workers will be in short supply. In that case, markets in Michigan would not expand as rapidly, reducing employment opportunities in retailing, services, construction, and several other industries below the levels suggested in Table XXVII-4. Also, by 1985, this state might be in the midst of another recession, which also would affect those numbers.

The figures in Table XXVII-5 were prepared independently by the Michigan Employment Security Commission as a guide to young people who want to know which occupational skills will be most in demand in Michigan during the next few years. Table XXVII-3 has highlights from the national occupational projection by the Bureau of Labor Statistics.

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TABLE XXVII-1. POPULATION PROJECTIONS FOR MICHIGAN, BY AGE AND SEX: 1970-2000

Age	Census 1970			1975			1980		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	410,096	394,367	804,463	384,259	366,711	750,971	353,232	338,201	691,432
5-9	471,266	452,552	923,818	441,919	425,319	867,238	413,285	396,245	809,530
10-14	498,844	480,421	979,265	482,733	465,737	948,470	471,330	455,869	927,199
15-19	436,420	436,204	872,624	471,623	473,817	945,440	475,110	465,493	940,604
20-24	328,837	373,905	702,742	352,077	386,721	738,798	397,370	412,008	809,378
25-29	293,503	300,095	593,598	283,258	343,700	626,958	273,871	342,083	615,953
30-34	239,490	249,275	488,765	331,774	303,427	635,201	318,116	361,462	679,578
35-39	230,493	243,579	474,072	249,916	226,144	476,060	346,169	298,056	644,224
40-44	259,354	268,896	528,250	218,158	203,843	422,001	233,678	202,487	436,165
45-49	257,814	271,407	529,221	258,305	256,450	514,755	212,981	193,786	406,767
50-54	231,567	245,220	477,787	251,698	265,530	517,228	262,015	262,806	524,820
55-59	201,328	209,925	411,253	218,162	234,677	452,838	244,797	263,788	508,585
60-64	162,083	174,187	336,270	178,831	190,927	369,758	198,204	222,399	420,603
65-69	123,237	140,340	263,577	128,147	146,294	274,441	147,940	169,498	317,438
70-74	89,288	113,757	203,045	88,480	115,715	204,195	96,550	125,621	222,172
75-79	61,889	84,670	146,559	68,290	98,647	166,938	67,024	100,062	167,086
80-84	33,520	51,771	85,291	51,720	76,596	128,316	54,067	85,826	139,893
85 and over	19,619	34,864	54,483	25,220	45,004	70,223	34,902	61,407	96,309
TOTAL	4,348,648	4,526,435	8,875,083	4,484,570	4,625,259	9,109,829	4,600,641	4,757,097	9,357,738
MEDIAN	25.49	27.03	26.28	27.26	27.82	27.56	28.19	29.51	28.94

TABLE XXVII-1. POPULATION PROJECTIONS FOR MICHIGAN, BY AGE AND SEX: 1970-2000 (cont.)

Age	1985			1990			2000		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	388,185	371,468	759,653	404,510	387,033	791,543	357,541	342,283	699,824
5-9	376,590	362,423	739,013	411,457	395,633	807,090	412,552	396,693	809,245
10-14	429,171	414,110	843,281	392,617	380,353	772,969	443,599	429,020	872,618
15-19	460,306	448,833	909,139	418,411	407,181	825,593	416,713	406,607	823,320
20-24	413,698	409,634	823,332	399,026	393,028	792,053	321,893	318,034	639,927
25-29	341,609	376,545	718,154	357,707	374,134	731,841	302,326	316,284	618,611
30-34	310,975	366,172	677,147	377,955	400,471	778,426	379,462	381,604	761,066
35-39	335,635	366,503	702,138	328,766	371,205	699,971	410,488	402,854	813,342
40-44	336,458	289,298	625,756	326,087	356,881	682,967	384,162	395,063	779,225
45-49	236,290	207,238	443,529	335,636	292,397	628,034	319,369	363,070	682,438
50-54	219,668	204,391	424,060	242,016	217,557	459,573	326,198	364,580	690,778
55-59	255,012	263,272	518,284	215,892	207,222	423,113	323,984	299,536	623,520
60-64	222,261	251,926	474,187	231,250	251,350	482,600	215,441	210,908	426,349
65-69	164,191	200,379	364,571	184,273	227,137	411,411	162,760	178,719	341,479
70-74	112,998	148,029	261,027	125,361	174,556	299,917	146,423	196,687	343,111
75-79	72,846	108,018	180,864	84,389	125,895	210,284	103,759	165,192	268,950
80-84	50,822	83,901	134,722	54,702	89,947	144,649	68,067	119,875	187,942
85 and over	35,616	68,214	103,829	34,536	69,187	103,723	40,402	82,396	122,798
TOTAL	4,762,332	4,940,354	9,702,685	4,924,590	5,121,168	10,045,759	5,135,138	5,369,405	10,504,543
MEDIAN	29.56	31.16	30.42	31.04	32.72	31.91	34.18	36.16	35.17

SOURCE: Michigan Department of Management and Budget, Population Projections for Michigan to the Year 2000 (Lansing: Information Systems Division, Office of the Budget, 1978), Table 3.

TABLE XXVII-2. PROJECTIONS OF MICHIGAN FUEL SUPPLY FOR VARIOUS CASE LEVELS FOR THE YEAR 2000

(Quadrillion BTUs)

Fuel	1976 actual	"Zero growth"			Probable	High supply	Upper bound
		No nuclear	With nuclear Option 1	With nuclear Option 2			
Hydro	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Coal	14.0	25.0	20.0	25.0	30.0	35.0	45.0
Gas	19.1	9.0	8.0	9.0	9.0	13.0	18.0
Oil	20.8	16.0	12.0	16.0	16.0	20.0	27.0
Oil shale	0	5.0	5.0	5.0	5.0	5.0	5.0
Other	0	5.0	5.0	5.0	5.0	7.0	10.0
Nuclear	2.1	0	10.0	10.0	12.0	15.0	25.0
Imports (oil)	14.0	12.0	12.0	5.0	15.0	19.0	23.0
Imports (gas)	1.0	3.0	3.0	0	5.0	6.0	7.0
TOTAL	74.0	80.0	80.0	80.0	102.0	125.0	165.0
Probability (of attaining supply)		(0.90)	(0.98)	(0.90)	(0.70)	(0.25)	(0.05)

SOURCE: Michigan Energy and Research Association, Toward a Unified Michigan Policy (Detroit: 1980), Table III-A.

TABLE XXVII-3. FASTEST GROWING JOBS AND JOBS WITH MOST OPENINGS IN THE UNITED STATES: 1978-1990

Fastest growing[a]		Jobs with most openings[b]	
Occupation	Number annually	Occupation	Number annually
Bank clerks	45,000	Secretaries and stenographers	305,000
Bank officers and financial managers	28,000	Retail sales workers	226,000
Business machine repairers	4,200	Building custodians	180,000
City managers	350	Cashiers	119,000
Computer serv. technicians	5,400	Bookkeeping workers	96,000
Construction inspectors	2,200	Nursing aides, orderlies, and attendants	94,000
Dental assistants	11,000	Cooks and chefs	86,000
Dental hygienists	6,000	Kindergarten and elementary teachers	86,000
Dining room attendants and dishwashers	37,000	Registered nurses	85,000
Flight attendants	4,800	Assemblers	77,000
Guards	70,000	Waiters and waitresses	70,000
Health serv. administrators	18,000	Guards	70,000
Homemaker-home health aides	36,000	Blue-collar worker supervisors	69,000
Industrial machinery repairers	58,000	Local truck drivers	64,000
Landscape architects	1,100	Accountants	61,000
Licensed practical nurses	60,000	Licensed practical nurses	60,000
Lithographers	2,300	Typists	59,000
Nursing aides, orderlies, and attendants	94,000	Carpenters	58,000
Occupational therapists	2,500	Industrial machinery rep.	58,000
Occupational therapy assistants	1,100	Real estate agts. & brokers	50,000
Physical therapists	2,700	Construction laborers	49,000
Podiatrists	600	Engineers	46,500
Respiratory therapy workers	5,000	Bank clerks	45,000
Speech pathologists and audiologists	3,900	Private household workers	45,000
Teacher aides	26,000	Receptionists	41,000
Travel agents	1,900	Wholesale trade sales workers	40,000

SOURCE: Bureau of Labor Statistics, Occupational Outlook Quarterly 24 (Spring 1980): 4.

a. Occupations with growth projections of 50 percent or more.

b. Replacement needs and growth are projected to cause these occupations to offer the largest number of openings.

TABLE XXVII-4. MICHIGAN JOB PROJECTIONS, BY INDUSTRY: 1985 AND 1990

Industry	Actual 1978	Projected 1985	Projected 1990
Farm proprietors	75.3	65.1	58.3
Nonfarm proprietors	223.8	240.2	252.2
Farm workers	26.5	21.7	19.3
Forestry	.2	.3	.3
Fisheries	.2	.2	.3
Oil and gas extraction	3.5	4.3	4.3
Metal mining	6.3	8.0	8.8
Other mining	3.6	4.0	4.0
General building contractors	37.0	35 9	35.1
Heavy construction contractors	21.1	23.1	25.4
Special trade contractors	79.6	83.6	87.3
Manufacturing:			
Food and kindred products	52.3	52.9	51.5
Textile mills	2.2	2.5	2.4
Apparel and miscellaneous textiles	25.1	24.0	25.0
Paper and allied products	23.6	24.0	25.0
Printing and publishing	33.5	36.3	35.2
Chemicals and allied products	45.8	49.8	52.6
Petroleum and related products	3.0	3.0	3.2
Rubber and plastic products	37.3	39.1	42.8
Leather and leather products	3.6	3.9	4.1
TOTAL nondurable goods	226.4	235.5	241.8
Lumber and wood products	14.1	15.5	16.0
Furniture and fixtures	21.7	23.9	23.8
Primary metals	93.2	90.0	88.5
Fabricated metal products	144.1	145.0	150.0
Nonelectrical machinery	158.6	166.8	158.4
Electrical machinery	51.8	60.2	63.1
Motor vehicles and equipment	405.1	425.0	430.0
Other transportation equipment	15.3	21.1	24.7
Stone, clay, and glass products	22.5	25.1	25.1
Instruments and related products	11.9	11.9	8.9
Miscellaneous manufacturing	9.2	9.9	9.1
TOTAL durable goods	947.5	994.4	997.6
Railroad transportation	16.2	15.6	13.7
Trucking and warehousing	46.9	50.0	49.0
Water transportation	1.7	1.6	1.5
Local transit	4.4	3.9	3.5
Air transportation	6.5	6.5	6.6
Pipeline transportation	.2	.3	.4
Transportation services	5.3	7.0	8.0
Communication	40.5	44.7	45.4
Public utilities	35.2	36.0	35.0
Wholesale trade	154.9	170.0	165.0

TABLE XXVII-4. MICHIGAN JOB PROJECTIONS, BY INDUSTRY: 1985 AND 1990 (cont.)

Industry	Actual 1978	Projected 1985	Projected 1990
Retail trade:			
Building materials	24.2	25.6	27.0
General merchandise	93.9	94.5	96.0
Food stores	84.1	91.0	92.0
Car dealers and gas stations	73.9	70.0	70.0
Apparel	38.3	45.4	51.0
Furniture	23.4	25.0	30.0
Eating and drinking	185.2	265.0	320.0
Miscellaneous	61.8	78.6	85.0
TOTAL retail trade	584.7	695.4	771.0
Banking	50.5	60.0	68.0
Other credit agencies	19.5	22.0	24.0
Brokers	2.8	3.0	4.0
Insurance carriers	37.1	45.0	47.0
Insurance agents and brokers	15.0	17.0	18.0
Real estate	23.6	26.7	29.5
Combined real estate and insurance	.5	.3	.2
Holding and other investment cost	1.2	1.6	2.0
Lodgings	26.3	34.7	38.8
Personal services	35.8	32.1	30.0
Private households	51.8	40.8	34.4
Business services	87.9	114.3	135.0
Automotive repair	23.7	27.9	28.8
Other repair	10.3	13.4	16.2
Amusements	25.8	36.0	45.0
Motion pictures	4.8	5.1	5.3
Medical and health	226.8	330.0	400.0
Legal services	14.4	20.4	27.4
Private educational services	24.1	22.4	21.3
Social services	26.3	30.0	35.0
Musiums	1.2	1.5	1.7
Nonprofit membership organizations	65.5	67.5	69.1
Miscellaneous services	37.7	42.0	50.0
Federal civilian	51.7	50.4	48.9
Federal military	37.4	29.2	24.1
State and local government	559.0	550.0	545.0
TOTAL	4,028.2	4,370.5	4,582.4

SOURCE: Bureau of Economic Analysis, special release, and Bureau of Business and Economic Research, Michigan State University.

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Professional, technical, kindred							
Engineers, technical							
Aero-astronautic	250	250	0	0.0	0	0	0
Chemical	2,000	2,200	200	10.0	30	20	50
Civil	3,900	4,650	750	19.2	120	80	200
Electrical	7,300	8,450	1,150	15.8	130	120	250
Industrial	10,000	11,950	1,950	19.5	190	220	410
Mechanical	18,200	21,300	3,100	17.0	360	350	710
Metallurgical	1,350	1,600	250	18.5	30	30	60
Mining	100	150	50	50.0	0	10	10
Petroleum	100	100	0	0.0	0	0	0
Sales	1,850	2,100	250	13.5	50	30	80
Other	6,750	8,550	1,800	26.7	170	200	370
TOTAL	51,900	61,300	9,400	18.1	1,080	1,040	2,120
Life and physical scientists							
Agricultural	600	750	150	25.0	20	20	40
Atmospheric and space	150	150	0	0.0	0	0	0
Biological	1,900	2,400	500	26.3	30	60	90
Chemists	5,100	5,800	700	13.7	90	80	170
Geologists	350	450	100	28.6	0	10	10
Physicists and astronomers	600	700	100	16.7	10	10	20
Other	150	150	0	0.0	0	0	0
TOTAL	8,850	10,450	1,600	18.1	150	180	330
Mathematical specialists							
Actuaries	150	250	100	66.7	0	10	10
Mathematicians	250	250	0	0.0	0	0	0
Statisticians	700	800	100	14.3	20	10	30
TOTAL	1,100	1,250	150	13.6	20	20	40
Engineering and science technicians							
Ag. and bio. tech., exc. health	1,150	1,650	100	6.5	50	10	60
Chemical	2,750	2,850	100	3.6	40	10	50
Drafters	22,850	28,300	5,450	23.9	350	610	960
Electrical and electronic	3,250	3,800	550	16.9	40	60	100
Industrial engineering	950	1,150	200	21.1	20	20	40
Mechanical engineering	1,750	2,150	400	22.9	30	40	70
Surveyors	1,400	1,800	400	28.6	20	40	60
Other	7,850	7,650	-200	- 2.5	120	- 20	100
TOTAL	42,350	49,300	6,950	16.4	660	770	1,430

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Professional, technical, kindred (cont.)							
Medical workers, except technicians							
Chiropractors	1,100	1,400	300	27.3	70	40	110
Dentists	5,050	6,000	950	18.8	90	110	200
Dietitians	1,600	1,800	200	12.5	60	20	80
Optometrists	800	950	150	18.8	50	20	70
Pharmacists	5,500	6,250	750	13.6	290	80	370
Physicians, medical and osteo.	13,100	18,500	5,400	41.2	200	600	800
Podiatrists	300	350	50	16.7	10	0	10
Registered nurses	31,500	41,450	9,950	31.6	1,260	1,110	2,370
Therapists	6,400	9,250	2,850	44.5	230	310	540
Veterinarians	1,050	1,350	300	28.6	20	40	60
Other	0	50	50	0.0	0	0	0
TOTAL	66,350	87,350	21,000	31.7	2,280	2,330	4,610
Health technol. and technicians							
Clinical lab.	7,000	9,550	2,550	36.4	210	290	500
Dental hygienists	1,500	3,250	1,750	116.7	80	190	270
Health record	600	800	200	33.3	30	20	50
Radiologic	3,350	4,750	1,400	41.8	110	160	270
Therapy assistants	150	150	0	0.0	0	0	0
Other	4,500	5,350	850	18.9	120	90	210
TOTAL	17,100	23,900	6,800	39.8	560	760	1,320
Technicians, except health							
Airplane pilots	1,050	1,450	400	38.1	20	50	70
Air traffic controllers	500	600	100	20.0	0	10	10
Embalmers	150	150	0	0.0	10	0	10
Radio operators	1,050	1,400	350	33.3	30	40	70
Tool programmers, num. control	200	400	200	100.0	0	20	20
Other	1,400	1,950	550	39.3	30	60	90
TOTAL	4,300	5,900	1,600	37.2	100	170	270
Computer specialists							
Programmers	8,000	9,750	1,750	21.9	80	190	270
Systems analysts	4,650	5,900	1,250	26.9	40	140	180
Other	650	750	100	15.4	10	10	20
TOTAL	13,300	16,400	3,100	23.3	130	340	470

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Professional, technical, kindred (cont.)							
Social scientists							
Economists	4,950	5,850	900	18.2	90	100	190
Psychologists	3,000	3,850	850	28.3	60	90	150
Sociologists	100	150	50	50.0	0	0	0
Urban and regional planners	650	950	300	46.2	10	30	40
Other	100	200	100	100.0	10	10	20
TOTAL	8,800	10,950	2,150	24.4	160	240	400
Teachers							
College and university	17,000	17,000	0	0.0	390	0	390
Elementary and secondary	116,150	108,000	-8,150	- 7.0	3,380	-900	2,480
Preschool and kindergarten	9,000	11,900	2,900	32.2	360	320	680
Other, exc. college & univer.	9,900	11,800	1,900	19.2	460	220	680
TOTAL	152,000	148,700	-3,300	- 2.2	4,590	-360	4,230
Writers, artists, and entertainers							
Actors	100	150	50	50.0	0	0	0
Athletes and related	3,000	3,750	750	25.0	80	80	160
Authors	850	850	0	00.0	30	0	30
Dancers	350	450	100	28.6	20	10	30
Designers	7,150	8,300	1,150	16.1	120	120	240
Editors and reporters	4,800	6,250	1,450	30.2	180	160	340
Musicians and composers	6,900	8,550	1,650	23.9	230	180	410
Painters and sculptors	6,500	7,200	700	10.8	170	80	250
Photographers	3,450	3,950	500	14.5	90	50	140
Public relations	3,500	4,300	800	22.9	110	90	200
Radio and TV announcers	900	1,200	300	33.3	10	30	40
Other	3,800	4,150	350	9.2	90	40	130
TOTAL	41,350	49,050	7,700	18.6	1,120	860	1,980
Other							
Accountants	34,700	40,600	5,900	17.0	1,060	660	1,720
Architects	2,050	2,750	700	34.1	70	80	150
Archivists and curators	200	250	50	25.0	10	0	10
Clergy	12,900	13,400	500	3.9	580	60	640
Religious workers, except clergy	2,350	2,750	400	17.0	160	40	200
Foresters and conservationists	1,500	1,750	250	16.7	30	30	60
Lawyers and judges	14,700	18,250	3,550	24.1	800	400	1,200

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Professionals, technicians, kindred (cont.)							
Other (cont.)							
Librarians	4,850	4,950	100	2.1	190	20	210
Operations and systems research	3,900	4,750	850	21.8	60	100	160
Personnel and labor relations	13,600	17,450	3,850	28.3	330	420	750
Research workers, other	5,350	3,850	-1,500	-28.0	90	-170	- 80
Recreation workers	4,450	5,450	1,000	22.5	120	110	230
Social workers	17,150	22,650	5,500	32.1	590	610	1,200
Vocational/ed. counselors	9,300	10,800	1,500	16.1	260	160	420
Other	200	150	- 50	-25.0	10	- 10	0
TOTAL	127,150	149,850	22,700	17.9	4,340	2,520	6,860
TOTAL ALL	534,650	614,400	79,750	14.9	8,860	15,200	24,060
Managers, officials, proprietors							
Buyers and sales and loan mgrs.							
Bank and financial mgrs.	15,800	23,400	7,600	48.1	490	840	1,330
Credit mgrs.	1,600	1,850	250	15.6	40	30	70
Buyers and shippers, farm prod.	300	350	50	16.7	20	10	30
Buyers, wholesale and retail	5,450	7,500	2,050	37.6	240	230	470
Pchg. agts. and buyers, other	7,800	10,200	2,400	30.8	220	260	480
Sales mgrs., retail trade	12,250	15,350	3,100	25.3	320	350	670
Sales mgrs., exc. retail trade	10,250	13,800	3,550	34.6	260	390	650
TOTAL	53,550	72,450	18,900	35.3	1,590	2,100	3,690
Administrators and public inspectors							
Assessors and controllers, local pub. administration	1,450	1,700	250	17.2	100	30	130
Construction inspectors, pub. ad.	1,000	1,450	450	45.0	70	50	120
Health administrators	5,300	7,750	2,450	46.2	240	270	510
Inspectors, exc. construction, public admin.	3,700	4,550	850	23.0	120	90	210
Officials and admin., other pub.	9,700	12,500	2,800	28.9	490	320	810
Postmasters and mail super.	850	800	- 50	- 5.9	40	0	40
School admin., postsecondary	1,500	1,750	250	16.7	50	30	80
School admin., elem. and sec.	13,000	15,050	2,050	15.8	360	230	590
TOTAL	36,500	45,550	9,050	24.8	1,470	1,010	2,480

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Growth	Total
Managers, officials, proprietors (cont.)							
Other							
Funeral directors	1,650	1,700	50	3.0	80	10	90
Mgrs. and superintendents, bldg.	2,950	4,250	1,300	44.1	280	140	420
Office mgrs., other	11,950	17,350	5,400	45.2	440	600	1,040
Officers, pilots, pursers, ship	350	400	50	14.3	10	0	10
Officials, lodges and unions	5,650	5,650	0	0.0	140	0	140
Railroad conductors	1,350	1,400	50	3.7	40	0	40
Restaurant, cafe, & bar mgrs.	19,250	22,500	3,250	16.9	660	360	1,020
Other	192,000	223,050	31,050	16.2	7,080	3,450	10,530
TOTAL	235,200	276,250	41,050	17.5	8,720	4,560	13,280
TOTAL ALL	325,200	394,300	69,100	21.2	11,780	7,680	19,460
Sales workers							
Ad. agts. and sales workers	3,600	4,750	1,150	31.9	110	130	240
Auctioneers	150	200	50	33.3	0	0	0
Insurance agts., brokers, and related	17,650	20,550	2,900	16.4	580	320	900
Real estate agts. & brokers	14,100	18,400	4,300	30.5	920	480	1,400
Stock & bond sales agts.	1,850	2,200	350	18.9	100	40	140
Sales clerks & workers, N.E.C.	174,400	200,650	26,250	15.1	6,730	2,920	9,650
TOTAL	211,750	246,750	35,000	16.5	8,440	3,890	12,330
Clerical and kindred workers							
Secretaries, stenographers and typists							
Legal	4,950	7,800	2,850	57.6	250	320	570
Medical	3,350	6,300	2,950	88.1	160	330	490
Other, incl. stenographers	126,100	166,950	40,850	32.4	5,090	4,540	9,630
Typists	42,100	50,050	7,950	18.9	1,540	880	2,420
TOTAL	176,500	231,100	54,600	30.9	7,040	6,070	13,110
Office machine operators							
Bookkeeping & billing	1,950	2,550	600	30.8	70	70	140
Calculating machines	1,050	1,150	100	9.5	40	10	50
Computer & peripheral	11,050	13,250	2,200	19.9	170	250	420
Duplicating machines	900	900	0	0.0	20	0	20
Keypunch operators	11,350	8,850	-2,500	-22.0	310	-280	30

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
	Clerical and kindred workers (cont.)						
Office machine operators (cont.)							
Tabulating machines	150	50	-100	-66.7	0	-10	-10
Other	2,800	2,850	50	1.8	90	10	100
TOTAL	29,200	29,600	400	1.4	700	50	750
Other clerical workers							
Bank tellers	16,400	21,450	5,050	30.8	560	560	1,120
Billing clerks	6,050	8,900	2,850	47.1	240	310	550
Bookkeepers	63,600	73,450	9,850	15.5	2,610	1,100	3,710
Cashiers	51,150	67,700	16,550	32.4	1,930	1,840	3,770
Clerical assts., social welfare	2,750	3,650	900	32.7	40	100	140
Clerical supervisors, N.E.C.	8,100	10,350	2,250	27.8	220	250	470
Collectors, bill & account	2,250	2,750	500	22.2	70	60	130
Counter clerks, except food	15,650	18,750	3,100	19.8	640	340	980
Dispatchers & starters, vehicle	2,850	3,400	550	19.3	90	60	150
Enumerators & interviewers	2,300	2,600	300	13.0	90	40	130
Estimators & invest., N.E.C.	15,950	18,250	2,300	14.4	500	250	750
Expediters & prod. controllers	10,250	13,000	2,750	26.8	250	310	560
File clerks	9,700	11,800	2,100	21.6	360	230	590
Insurance adjusters and exam.	5,950	7,150	1,200	20.2	120	130	250
Library attendants and assts.	5,100	5,150	50	1.0	170	10	180
Mail carriers, post office	10,150	10,100	-50	- .5	210	0	210
Mail handlers, exc. post office	4,800	6,050	1,250	26.0	180	140	320
Messengers & couriers	1,550	1,700	150	9.7	50	20	70
Meter readers, utilities	1,500	1,450	-50	- 3.3	20	-10	10
Payroll & timekeeping clerks	9,050	0,400	1,350	14.9	290	140	430
Postal clerks	9,450	8,750	-700	- 7.4	240	-80	160
Proofreaders	1,000	1,350	350	35.0	60	40	100
Real estate appraisers	900	1,150	250	27.8	50	30	80
Receptionists	22,750	29,600	6,850	30.1	970	760	1,730
Shipping and receiving clerks	16,950	20,750	3,800	22.4	450	420	870
Statistical clerks	11,300	13,800	2,500	22.1	400	280	680
Stock clerks & storekeepers	20,700	23,600	2,900	14.0	530	320	850
Teacher aides, exc. school mon.	10,550	16,350	5,800	55.0	310	650	960
Telegraph msgrs.	100	50	-50	-50.0	0	-10	-10
Telegraph operators	250	200	-50	-20.0	10	-10	0

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Clerical and kindred workers (cont.)							
Other (cont.)							
Telephone operators	12,050	11,850	-200	- 1.7	440	-20	420
Ticket station & express agts.	2,500	3,050	550	22.0	70	60	130
Weighers	1,450	1,500	50	3.4	40	10	50
Other	51,500	96,350	44,850	87.1	2,310	4,980	7,290
TOTAL	406,650	526,350	119,700	29.4	14,490	13,300	27,790
TOTAL ALL	612 300	787,050	174,750	28.5	22,220	19,410	41,630
Crafts and kindred workers							
Blue-collar supervisors, N.E.C.							
TOTAL	71,800	84,650	12,850	17.9	1,710	1,430	3,140
Construction crafts workers							
Brickmasons & stonemasons	7,000	8,150	1,150	16.4	140	130	270
Bulldozer operators	4,050	5,850	1,800	44.4	100	200	300
Carpenters	31,650	40,450	8,800	27.8	990	980	1,970
Cement & concrete finishers	1,900	3,100	1,200	63.2	40	140	180
Electricians	25,250	31,500	6,250	24.8	590	700	1,290
Excavating & grading machine ops.	9,100	12,400	3,300	36.3	170	370	540
Floor layers, exc. tile setters	450	550	100	22.2	10	10	20
Painters, cons., & maintenance	13,300	16,450	3,150	23.7	470	350	820
Paperhangers	350	500	150	42.9	30	20	50
Plasterers	750	850	100	13.3	20	10	30
Plumbers & pipe fitters	17,700	24,100	6,400	36.2	490	710	1,200
Roofers & slaters	2,800	4,200	1,400	50.0	60	150	210
Structural metal workers	2,500	3,900	1,400	56.0	70	150	220
Tile setters	1,100	1,450	350	31.8	20	40	60
TOTAL	117,800	153,500	35,700	30.3	3,190	3,970	7,160
Metal crafts workers, exc. mech.							
Blacksmiths	200	100	-100	-50.0	10	-10	0
Boilermakers	1,000	1,800	800	80.0	40	80	120
Heat treaters, annealers, & rel.	2,500	2,500	0	0.0	70	0	70
Forge & hammer op.	1,900	2,100	200	10.5	40	20	60
Job & die setters, metal	15,600	17,850	2,250	14.4	350	250	600
Machinists	13,600	15,700	2,100	15.4	390	230	620
Millwrights	11,300	12,150	850	7.5	260	100	360

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Crafts and kindred workers (cont.)							
Metal crafts workers (cont.)							
Molders, metal	4,000	4,300	300	7.5	80	30	110
Pattern & model makers	5,150	5,850	700	13.6	130	70	200
Rollers & finishers, metal	1,450	1,600	150	10.3	30	20	50
Sheetmetal workers & tinsmiths	6,350	8,000	1,650	26.0	140	180	320
Tool and die makers	33,800	39,250	5,450	16.1	840	610	1,450
TOTAL	96,850	111,200	14,350	14.8	2,360	1,600	3,960
Mechanics, repairers, & installers							
Air conditioning, htg., & refrig.	6,100	9,850	3,750	61.5	220	420	640
Aircraft mechanics & repairers	1,100	1,500	400	36.4	20	50	70
Automobile access. installers	500	550	50	10.0	10	0	10
Automobile body repairers	8,800	10,750	1,950	22.2	150	210	360
Automobile mechanics	48,100	54,050	5,950	12.4	940	660	1,600
Data proc. machine repairers	1,750	3,200	1,450	82.9	20	160	180
Farm implement repairers	2,350	3,050	700	29.8	80	80	160
Heavy equip. mechanics, incl. diesel	41,550	47,750	6,200	14.9	1,030	690	1,720
Household appliance mechanics	6,400	7,400	1,000	15.6	140	120	260
Office machine repairers	2,300	3,250	950	41.3	30	110	140
Radio and television repairers	3,550	4,900	1,350	38.0	90	150	240
Railroad & car shop repairers	1,450	1,300	-150	-10.3	30	-20	10
Other	11,100	12,250	1,150	10.4	250	130	380
TOTAL	135,050	159,750	24,700	18.3	3,010	2,750	5,760
Printing trade crafts workers							
Bookbinders	1,000	1,100	100	10.0	40	10	50
Compositors & typesetters	4,800	4,550	-250	- 5.2	160	-30	130
Electrotypers & stereotypers	200	150	-50	-25.0	10	0	10
Engravers, exc. photoengravers	350	350	0	0.0	10	0	10
Photoengravers & lithographers	1,250	1,600	350	28.0	40	40	80
Printing press operators	5,650	6,800	1,150	20.4	110	120	230
TOTAL	13,300	14,550	1,250	9.4	360	140	500

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Crafts and kindred workers (cont.)							
Transportation & pub. util. crafts							
Electric power line installers	3,600	4,000	400	11.1	50	50	100
Locomotive engineers	1,300	1,550	250	19.2	50	30	80
Locomotive engineer helpers	300	150	-150	-50.0	0	-20	-20
Power station operators	1,000	1,000	0	0.0	30	0	30
Telephone installers & reprs.	10,150	11,550	1,400	13.8	120	160	280
Telephone line installers and splicers	2,000	2,000	0	0.0	20	0	20
TOTAL	18,350	20,300	1,950	10.6	260	220	480
Other crafts & kindred workers							
Bakers	5,250	4,800	-450	- 8.6	1,770	690	2,460
Cabinet makers	2,250	2,250	0	0.0	190	-50	140
Carpet installers	3,300	4,000	700	21.2	110	0	110
Crane, derrick, & hoist op.	9,650	11,850	2,200	22.8	50	80	130
Decorators & window dressers	4,100	5,050	950	23.2	230	240	470
Dental laboratory tech.	1,300	1,900	600	46.2	160	110	270
Furniture and wood finishers	750	650	-100	-13.3	40	70	110
Glaziers	1,600	2,350	750	46.9	50	-10	40
Inspectors, log & lumber	200	200	0	0.0	40	80	120
Inspectors, other	5,800	6,550	750	12.9	10	0	10
Jewelers & watchmakers	1,200	1,200	0	0.0	180	90	270
Millers; grain, flour, & feed	400	450	50	12.5	60	0	60
Motion picture projectionists	450	500	50	11.1	10	10	20
Opticians & lens grinders and polishers	1,150	1,650	500	43.5	30	10	40
Piano & organ tuners & reprs.	300	350	50	16.7	30	60	90
Shoe repairers	650	600	-50	- 7.7	20	0	20
Sign painters & letterers	800	950	150	18.8	60	0	60
Stationary engineers	6,700	6,600	-100	- 1.5	40	20	60
Stone cutters & carvers	200	150	-50	-25.0	200	-20	180
Tailors	1,250	1,150	-100	- 8.0	10	0	10
Upholsterers	2,700	2,700	0	0.0	100	-10	90
Other	4,100	4,350	250	6.1	100	0	100
TOTAL	54,050	60,200	6,150	11.4	1,770	690	2,460
TOTAL ALL	507,150	604,200	97,050	19.1	12,670	10,790	23,460

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Operatives							
Semiskilled metalworking op.							
Drill press op.	5,300	4,750	-550	-10.4	100	-60	40
Furnace tenders, smelters, and pourers	6,250	7,600	1,350	21.6	140	150	290
Grinding machine op.	19,100	17,800	-1,300	- 6.8	430	-140	290
Heaters, metal	700	600	-100	-14.3	20	-10	10
Lathe & milling machine op.	7,950	9,050	1,100	13.8	200	130	330
Metal platers	2,450	2,400	-50	- 2.0	50	-10	40
Precision machine op., other	5,450	7,700	2,250	41.3	150	250	400
Punch & stamping press op.	26,750	31,250	4,500	16.8	600	500	1,100
Solderers	850	550	-300	-35.3	20	-40	-20
Welders & flame-cutters	41,650	49,550	7,900	19.0	840	880	1,720
TOTAL	116,500	131,250	14,750	12.7	2,520	1,640	4,160
Semiskilled textile operatives							
TOTAL	900	750	-150	-16.7	20	-20	0
Semiskilled packing & inspecting ops.							
Checkers, examiners, & related mfg.	44,650	65,150	20,500	45.9	1,350	2,270	3,620
Graders & sorters, mfg.	1,150	1,350	200	17.4	40	20	60
Meat wrappers, retail trade	2,250	2,650	400	17.8	70	40	110
Packers & wrappers, exc. meat and produce	21,200	26,500	5,300	25.0	620	590	1,210
Prod. graders & packers, exc. mfg., farm	600	750	150	25.0	30	20	50
TOTAL	69,850	96,400	26,550	38.0	2,110	2,950	5,060
Other operatives, except transport							
Asbestos & insulation workers	1,100	1,900	800	72.7	20	90	110
Assemblers	95,100	126,900	31,800	33.4	2,040	3,530	5,570
Blasters	150	200	50	33.3	10	0	10
Bottling & canning op.	1,950	2,100	150	7.7	60	20	80
Clothing ironers & pressers	3,050	2,650	-400	-13.1	110	-40	70
Cutting op., other	9,800	12,350	2,550	26.0	290	280	570
Dressmakers, except factory	4,100	3,400	-700	-17.1	250	-80	170
Drillers, earth	2,350	2,550	200	8.5	50	30	80
Dry wall installers & lathers	2,150	3,400	1,250	58.1	30	140	170

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
		Operatives (cont.)					
Other (cont.)							
Dyers	200	250	50	25.0	10	10	20
Filers, polishers, sanders and buffers	10,550	11,350	800	7.6	270	90	360
Furnace tenders & stokers, except metal	3,800	3,800	0	0.0	130	0	130
Garage workers & gas sta. att.	20,600	20,600	0	0.0	360	0	360
Ldry. & dry cleaning op., other	7,050	9,350	2,300	32.6	350	250	600
Meat cutters & butch., exc. mfg.	7,600	7,400	-200	- 2.6	260	-30	230
Meat cutters & butchers, mfg.	1,800	2,000	200	11.1	50	20	70
Mine op., other	2,750	2,450	-300	-10.9	50	-30	20
Mixing op.	2,550	2,800	250	9.8	50	30	80
Oilers & greasers, exc. auto	2,700	3,200	500	18.5	90	50	140
Painters, mfg. articles	10,450	13,800	3,350	32.1	240	370	610
Photographic process workers	2,700	3,750	1,050	38.9	80	120	200
Riveters & fasteners	1,200	1,300	100	8.3	30	10	40
Sailors & deckhands	450	450	0	0.0	10	0	10
Sawyers	4,550	5,200	650	14.3	190	70	260
Sewers & stitchers	11,100	15,350	4,250	38.3	500	470	970
Shoemaking machine op.	550	450	-100	-18.2	10	-10	0
Surveyor helpers	400	450	50	12.5	10	10	20
Winding ops., other	2,250	2,800	550	24.4	70	60	130
Other machine ops.	68,400	78,400	10,000	14.6	1,520	1,110	2,630
Other	44,000	48,700	4,700	10.7	1,050	520	1,570
TOTAL	325,350	389,250	63,900	19.6	8,170	7,100	15,270
Transport equip. operators							
Bus drivers	11,050	8,950	-2,100	-19.0	310	-240	70
Delivery & route workers	29,850	35,650	5,800	19.4	700	640	1,340
Fork lift & tow motor	24,550	30,950	6,400	26.1	380	710	1,090
Parking attendants	1,250	1,250	0	0.0	70	0	70
Rail vehicle ops., other	250	300	50	20.0	10	10	20
Railroad brake ops., & couplers	1,300	1,350	50	3.8	20	10	30
Railroad switch ops.	1,900	1,900	0	0.0	30	0	30
Taxi drivers & chauffeurs	5,500	5,850	350	6.4	250	40	290
Truck drivers	55,900	64,350	8,450	15.1	1,140	940	2,080
Other	100	100	0	0.0	0	0	0
TOTAL	131,650	150,700	19,050	14.5	2,920	2,110	5,030
TOTAL ALL	644,250	768,350	124,100	19.3	15,750	13,790	29,540

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
Service workers							
Cleaning service workers							
Bldg. interior, other	5,450	10,300	4,850	89.0	370	540	910
Janitors & sextons	30,350	38,050	7,700	25.4	1,690	860	2,550
Lodging quarters, ex. priv.	68,100	74,600	6,500	9.5	3,630	720	4,350
TOTAL	103,900	123,000	19,100	18.4	5,690	2,120	7,810
Food service workers							
Bartenders	1,250	15,250	3,000	24.5	580	340	920
Cooks, exc. priv. household	42,850	57,850	15,000	35.0	1,770	1,660	3,430
Dishwashers	11,600	14,050	2,450	21.1	360	270	630
Food counter & fountain	14,150	19,450	5,300	37.5	540	590	1,130
Waiters	60,550	75,400	14,850	24.5	2,110	1,650	3,760
Waiters' assistants	10,650	14,700	4,050	38.0	110	450	560
Other, exc. private	18,500	24,050	5,550	30.0	790	620	1,410
TOTAL	170,550	220,850	50,300	29.5	6,260	5,590	11,850
Health service workers							
Dental assistants	6,500	9,750	3,250	50.0	280	360	640
Health aides, exc. nursing	13,900	21,650	7,750	55.8	590	860	1,450
Nursing aides, orderlies, & att.	41,750	60,400	18,650	44.7	1,690	2,070	3,760
Practical nurses	23,950	36,050	12,100	50.5	980	1,340	2,320
Other	400	100	-300	-75.0	10	-30	-20
TOTAL	86,500	127,950	41,450	47.9	3,550	4,610	8,160
Personal service workers							
Attends., recreation & amusement	3,400	4,250	850	25.0	120	90	210
Attends., personal serv., other	2,750	3,050	300	10.9	150	30	180
Baggage porters & bellhops	400	500	100	25.0	20	10	30
Barbers	4,750	4,900	150	3.2	250	20	270
Boarding, lodg. housekeepers	600	700	100	16.7	50	10	60
Child care workers, exc. priv.	11,200	19,150	7,950	71.0	710	880	1,590
Elevator operators	1,000	750	-250	-25.0	50	-30	20
Flight attendants	150	250	100	66.7	10	10	20
Hairdressers & cosmetologists	20,600	22,650	2,050	10.0	790	230	1,070
Housekeepers, exc. priv.	5,000	6,100	1,100	22.0	240	120	360
School monitors	4,200	5,950	1,750	41.7	120	190	310
Ushers, rec. & amusement	550	600	50	9.1	10	0	10
Welfare service aides	1,650	2,000	350	21.2	60	40	100
Other	50	50	0	0.0	0	0	0
TOTAL	56,450	70,900	14,450	25.6	2,580	1,600	4,180

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Growth	Total
Service workers (cont.)							
Protective service workers							
Crossing guards & bridge tenders	1,950	2,500	550	28.2	210	60	270
Fire fighters	7,650	9,750	2,100	27.5	110	230	340
Guards	22,250	30,750	8,500	38.2	1,610	940	2,550
Police & detectives	22,200	31,550	9,350	42.1	370	1,040	1,410
TOTAL	54,100	74,500	20,400	37.7	2,300	2,270	4,570
Private household workers							
Child care, priv. household	15,350	10,600	-4,750	-30.9	700	-530	170
Cleaners & servants, priv.	9,500	6,900	-2,600	-27.4	600	-290	310
Cooks, priv. household	350	300	-50	-14.3	30	-10	20
Housekeepers, priv. household	2,400	1,350	-1,050	-43.8	150	-120	30
Launderers, priv. household	200	100	-100	-50.0	10	-10	0
TOTAL	27,800	19,250	-8,550	-30.8	1,500	-950	550
TOTAL ALL	499,250	636,450	137,200	27.5	21,880	15,240	37,120
Laborers, except farm							
Animal caretakers, exc. farm	3,950	4,950	1,000	25.3	150	110	260
Carpenters' helpers	1,750	2,050	300	17.1	50	40	90
Construction laborers, other	18,500	22,650	4,150	22.4	400	460	860
Fishers, hunters, & trappers	250	150	-100	-40.0	10	-10	0
Freight & material handlers	29,600	34,350	4,750	16.0	560	530	1,090
Garbage collectors	4,100	6,050	1,950	47.6	130	220	350
Gardeners & groundskeepers, exc. farm	15,600	18,800	3,200	20.5	760	360	1,120
Longshore workers & stevedores	250	300	50	20.0	10	0	10
Timber cutting & logging	2,100	1,950	-150	- 7.1	60	-20	40
Stock handlers	45,150	50,000	4,850	10.7	590	540	1,130
Vehicle washers & equipment cleaners	9,850	10,750	900	9.1	190	100	290
Warehouse laborers, other	2,900	3,050	150	5.2	60	20	80
Other	28,050	28,800	750	2.7	720	90	810
TOTAL	162,000	183,900	21,900	13.5	3,680	2,430	6,110

TABLE XXVII-5. PROJECTED EMPLOYMENT IN MICHIGAN, BY OCCUPATION: 1976-1985 (cont.)

Occupation	Employment 1976	Employment 1985	Change Number	Change (%)	Annual average openings Replacement	Annual average openings Growth	Annual average openings Total
			Farmers and farm workers				
Farmers & farm workers							
Farmers (owners & tenants)	41,350	40,450	-900	- 2.2	2,650	-100	2,550
Farm managers	650	1,050	400	61.5	30	40	70
TOTAL	42,000	41,500	-500	- 1.2	2,680	-60	2,620
Farm laborers & supervisors							
Farm labor supervisors	350	350	0	0.0	10	0	10
Farm laborers, wage earning	18,650	15,100	-3,550	-19.0	590	-400	190
Farm laborers, other	11,250	9,550	-1,700	-15.1	420	-190	230
TOTAL	30,300	25,000	-5,300	-17.5	1,020	-590	430
TOTAL ALL	72,300	66,500	-5,800	- 8.0	3,690	-640	3,050
GRAND TOTAL	3,568,900	4,301,900	733,000	20.5	115,300	81,450	196,750

SOURCE: Michigan Employment Security Commission, Michigan Occupation Outlook 1985 (Detroit: 1980), pp. 23-46.

N.E.C.: Not elsewhere classified.

APPENDIX I

MICHIGAN'S STANDARD METROPOLITAN STATISTICAL AREAS

The concept of the "standard metropolitan statistical area" has been developed to meet the need for the presentation of statistics. The following excerpts from the U.S. Census of Population: 1960 and U.S. Census of Population: 1970 describe the purpose of the SMSAs.

"It has long been recognized that for many types of social and economic analysis it is necessary to consider as a unit the entire population in and around the city whose activities form an integrated social and economic system.... To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Office of Management and Budget has established 'standard metropolitan statistical areas' (SMSAs)."

"Except in New England, an SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more or 'twin cities' with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city."

"The Bureau of the Census recognizes 243 Standard Metropolitan Statistical Areas (SMSAs) in the United States and 4 in Puerto Rico, making a total of 247 in the 1970 census. These include the 231 SMSAs as defined and named in the Bureau of the Budget publication, Standard Metropolitan Statistical Areas: 1967, U.S. Government Printing Office, Washington, D.C. 20402. Since 1967, 16 SMSAs have been added, of which 2 were defined in January 1968 and an additional 14 were defined in February 1971 on the basis of the results of the 1970 census."

Users of this statistical abstract will find that certain tables pertain to areas in Michigan which are SMSAs.

Michigan's Standard Metropolitan Statistical Areas for 1940, 1950, 1967, 1971, and 1973 were composed as follows:

MICHIGAN SMSAs, COUNTIES INCLUDED

SMSA	1940[a]	1950	1967	1971	1973
Ann Arbor-Ypsilanti			Washtenaw	Washtenaw	Washtenaw
Battle Creek				Calhoun	Calhoun
Bay City[b]		Bay	Bay	Bay	Barry Bay

MICHIGAN SMSAs, COUNTIES INCLUDED (cont.)

SMSA	1940[a]	1950	1967	1971	1973
Detroit	Macomb Oakland Wayne	Macomb Oakland Wayne	Macomb Oakland Wayne	Macomb Oakland Wayne	Lapeer Livingston Macomb Oakland St. Clair Wayne
Flint	Genesee	Genesee	Genesee	Genesee Lapeer	Genesee Shiawassee
Grand Rapids	Kent	Kent	Kent	Kent Ottawa	Kent Ottawa
Jackson		Jackson	Jackson	Jackson	Jackson
Kalamazoo-Portage	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo Van Buren
Lansing-East Lansing	Ingham	Ingham	Ingham Clinton Eaton	Ingham Clinton Eaton	Ingham Ionia Clinton Eaton
Muskegon-Norton Shores-Muskegon Heights			Muskegon	Muskegon	Muskegon Oceana
Saginaw[b]	Saginaw	Saginaw	Saginaw	Saginaw	Saginaw

SOURCE: U.S.Bureau of the Census, U.S. Census of Population: 1940, 1950, 1960, and 1970; Bureau of the Budget, Metropolitan Statistical Areas.

NOTE: Because of changes in designation of individual areas from Metropolitan Areas in 1940 to Standard Metropolitan Areas (SMSAs) for the 1950 census, to Standard Metropolitan Statistical Areas for the 1960 census, and changes in the SMSAs since 1960, the census data presented by SMSAs are not strictly comparable.

a. The designation was changed from Metropolitan Area to Standard Metropolitan Area just prior to the 1950 census. It finally was standardized as Standard Metropolitan Statistical Area in 1959.

b. Saginaw and Bay City were classified in the 1940 census as the Metropolitan Area of Saginaw-Bay City which was composed of Bay and Saginaw counties.

APPENDIX II

SELECTED STATISTICS FOR COMPARING THE 50 UNITED STATES AND THE DISTRICT OF COLUMBIA

State	Rank order of population	Total resident population 1 July 1979 (thousands)	Land area (square miles)	Membership in U.S. House of Representatives based on 1970 census	Per capita personal income 1979	Per capita federal tax burden fiscal 1978	Per capita state and local tax collections fiscal 1978
California	1	22,694	156,361	43	$9,913	$1,963	$1,227
New York	2	17,648	47,831	39	9,098	2,031	1,308
Texas	3	13,380	262,134	24	8,649	1,724	707
Pennsylvania	4	11,731	44,966	25	8,559	1,833	862
Illinois	5	11,229	55,748	24	9,823	2,130	917
Ohio	6	10,731	40,975	23	8,775	1,809	701
MICHIGAN	7	9,207	56,817	19	9,269	1,891	959
Florida	8	8,860	54,090	15	8,532	1,681	699
New Jersey	9	7,332	7,521	15	9,702	2,230	993
Massachusetts	10	5,769	7,826	12	8,844	1,900	1,098
North Carolina	11	5,606	48,798	11	7,359	1,407	643
Indiana	12	5,400	36,097	11	8,686	1,725	707
Virginia	13	5,197	39,780	10	8,605	1,728	757
Georgia	14	5,117	58,073	10	7,515	1,427	672
Missouri	15	4,867	68,995	10	8,132	1,653	653
Wisconsin	16	4,720	54,464	9	8,419	1,667	970
Tennessee	17	4,380	41,328	8	7,299	1,443	613
Maryland	18	4,148	9,891	8	9,150	2,059	985
Minnesota	19	4,060	89,289	8	8,760	1,722	1,001
Louisiana	20	4,018	44,930	8	7,477	1,465	716
Washington	21	3,926	66,570	7	9,435	1,993	929
Alabama	22	3,769	50,708	7	6,976	1,337	566
Kentucky	23	3,527	39,650	7	7,342	1,416	662
Connecticut	24	3,115	4,862	6	9,959	2,322	941
South Carolina	25	2,932	30,225	6	7,027	1,298	615
Iowa	26	2,902	55,941	6	8,589	1,735	794
Oklahoma	27	2,892	68,782	6	8,226	1,495	660
Colorado	28	2,772	103,766	5	8,945	1,742	882
Oregon	29	2,527	96,184	4	8,842	1,715	872
Arizona	30	2,450	113,417	4	8,305	1,528	907

SELECTED STATISTICS FOR COMPARING THE 50 UNITED STATES AND THE DISTRICT OF COLUMBIA (cont.)

State	Rank order of population	Total resident population 1 July 1979 (thousands)	Land area (square miles)	Membership in U.S. House of Representatives based on 1970 census	Per capita personal income 1979	Per capita federal tax burden fiscal 1978	Per capita state and local tax collections fiscal 1978
Mississippi	31	2,429	47,296	5	$6,167	$1,119	589
Kansas	32	2,369	81,787	5	9,055	1,862	798
Arkansas	33	2,180	51,945	4	6,785	1,216	553
West Virginia	34	1,878	48,798	4	7,470	1,466	675
Nebraska	35	1,574	76,483	3	8,341	1,719	814
Utah	36	1,367	82,096	2	7,185	1,349	728
New Mexico	37	1,241	121,412	2	7,294	1,385	763
Maine	38	1,097	30,920	2	7,057	1,429	758
Rhode Island	39	929	1,049	2	8,266	1,915	848
Hawaii	40	915	6,429	2	9,353	1,955	1,059
Idaho	41	905	82,677	2	7,446	1,473	701
New Hampshire	42	887	9,027	2	8,231	1,710	669
Montana	43	786	145,587	2	7,412	1,547	817
Nevada	44	702	109,889	1	10,204	2,023	1,004
South Dakota	45	689	75,955	2	7,334	1,356	683
North Dakota	46	657	69,273	1	7,774	1,612	721
District of Columbia	47	656	61	0	10,911	2,418	1,245
Delaware	48	582	1,982	1	9,537	2,136	943
Vermont	49	493	9,267	1	7,280	1,441	837
Wyoming	50	450	97,203	1	9,657	1,950	1,156
Alaska	51	406	566,432	1	11,252	3,355	1,871

SOURCE: Column 2, Bureau of the Census, special release; columns 3 and 4, Bureau of the Census, Statistical Abstract of the United States: 1976, 97th ed. (Washington, D.C.: 1976), Tables 303 and 733; column 5, Bureau of Economic Analysis, special release; column 6, Tax Foundation, Inc., Facts and Figures on Government Finance (Washington, D.C.: 1979), 20th biennial edition, Table 101; and column 7, Bureau of the Census, Governmental Finances in 1977-78, GF78, no. 5 (Washington, D.C.: February 1980), Table 24.

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